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# Multimorbidity: perspective from a General Practitioner

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Who attends general practice?  
The challenges for patients  
The challenges for GPs  
What do we need to change?



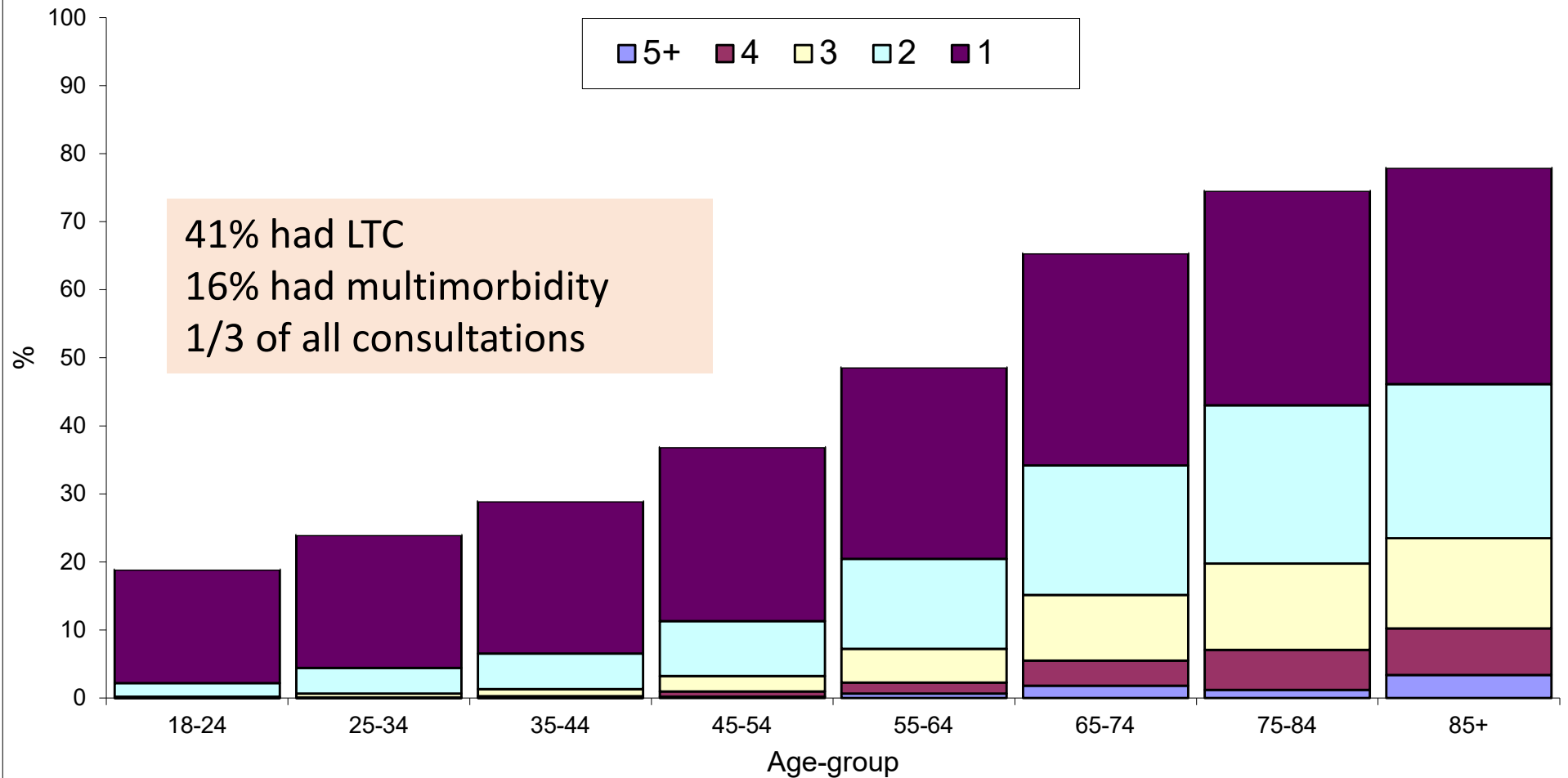
# The patients who attend



# The patients who attend

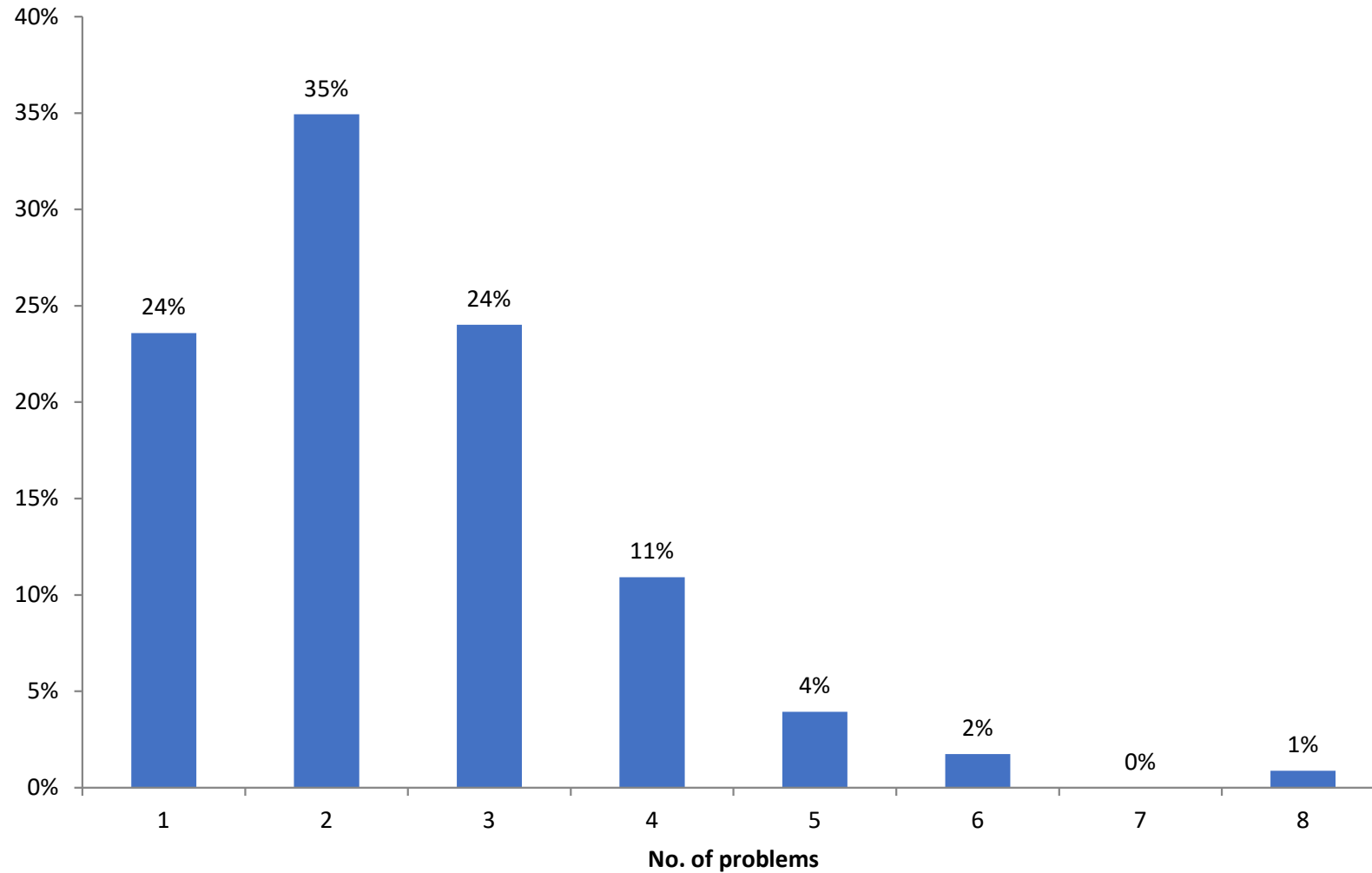


## Number of QoF conditions, per patient, by age group



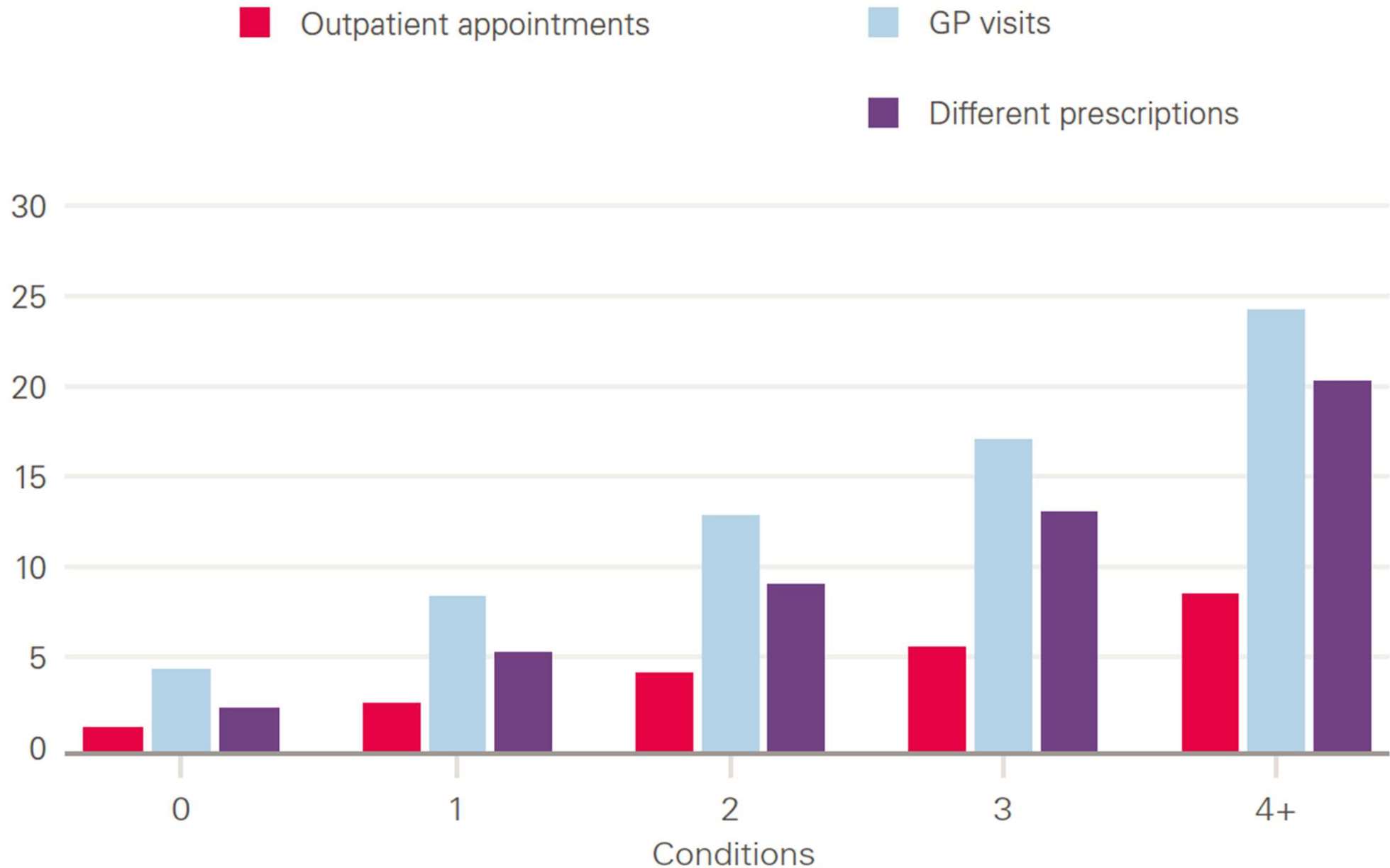
Salisbury C, Johnson LR, Purdy S, Valderas JM, Montgomery AA. Epidemiology and impact of multimorbidity in primary care: a retrospective cohort study. Br J Gen Pract. 2011;61(582):e12-e21.

# Number of problems discussed in GP consultations



Salisbury C, Procter S, Stewart K, Bowen L, Purdy S, Ridd M, et al. The content of general practice consultations: cross-sectional study based on video recordings. *Br J Gen Pract.* 2013;63(616):e751-9.

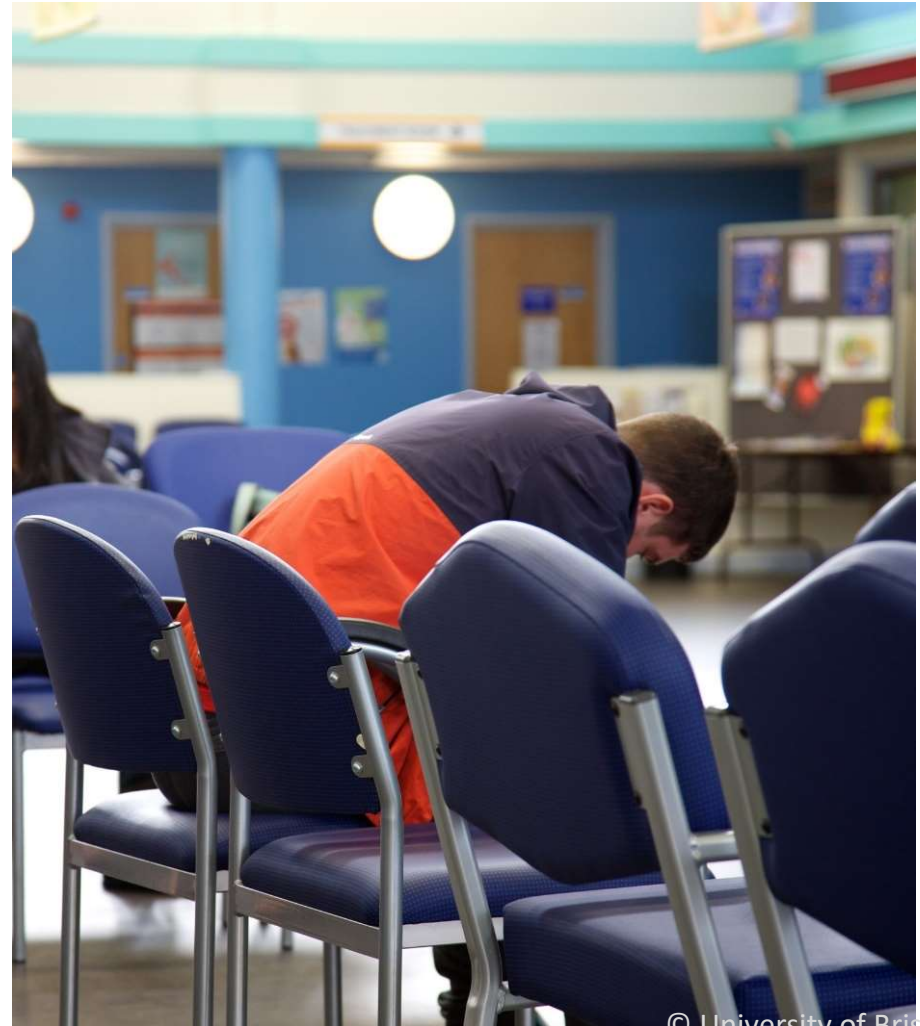
**Figure 5: Outpatient and primary care interactions by number of conditions**





# Multimorbidity



- Poor quality of life
- Poor mental health
- High mortality





ARTICLES | [VOLUME 392, ISSUE 10141, P41-50, JULY 07, 2018](#)

## Management of multimorbidity using a patient-centred care model: a pragmatic cluster-randomised trial of the 3D approach

[Prof Chris Salisbury, MD](#)   • [Mei-See Man, PhD](#) • [Prof Peter Bower, PhD](#) • [Prof Bruce Guthrie, PhD](#) • [Katherine Chaplin, PhD](#) • [Daisy M Gaunt, MSc](#) • et al. [Show all authors](#)

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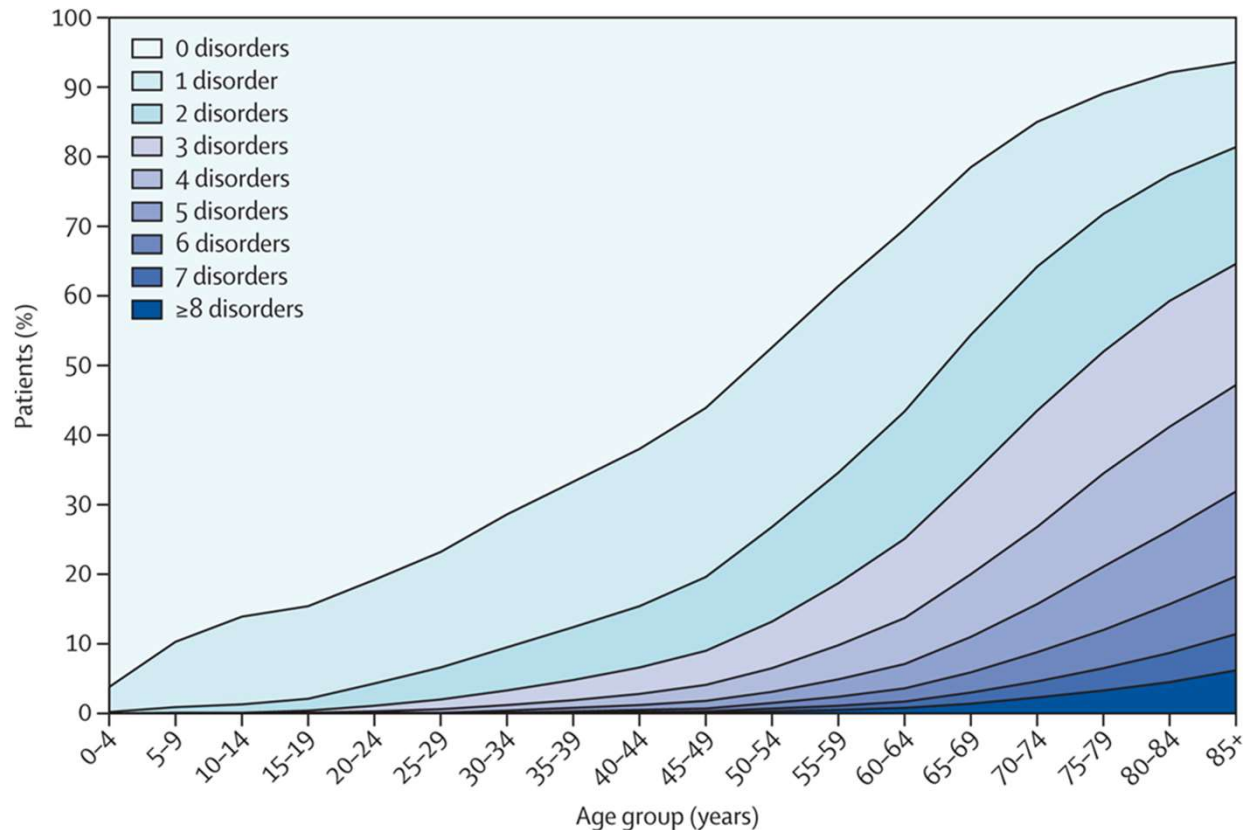


## 3D trial: usual care

- 2/3 had 'fair' or 'poor' health
- 1/3 had anxiety or depression
- Continuity of care low
- 90% of patients didn't have a care plan
- 23% of patients said their care was 'rarely or never' joined up.
- 35% hadn't discussed their most important problems

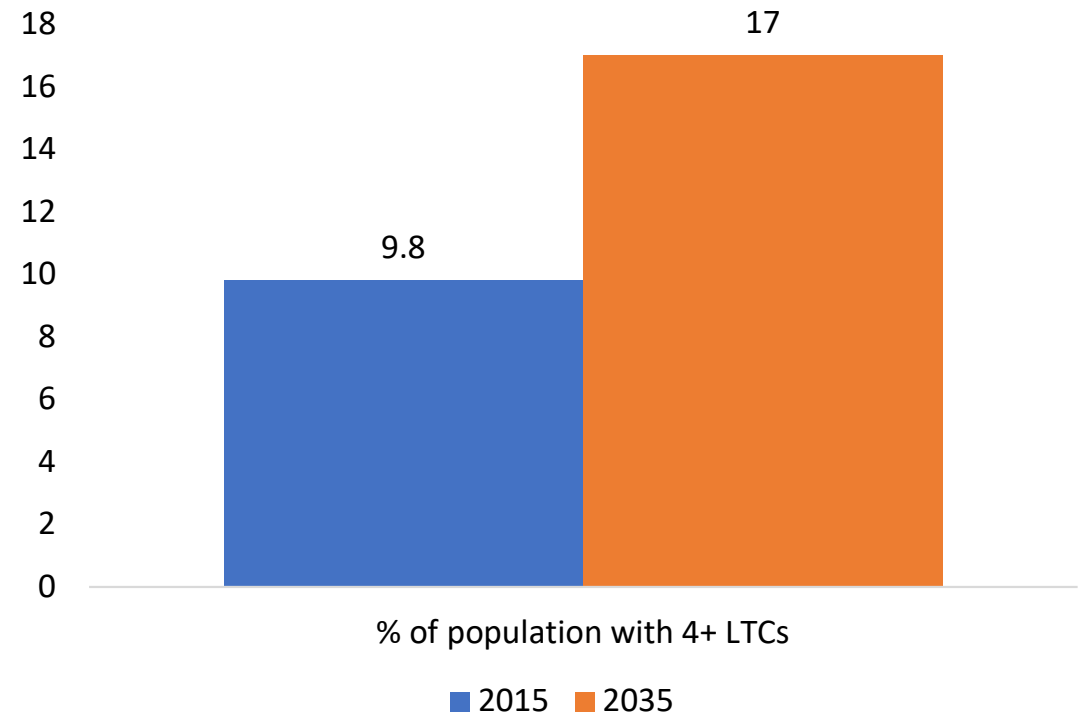
# Prevalence of multiple long term conditions

- $\frac{1}{4}$  of adults in England have 2+ long-term conditions
- Prevalence of multiple long term conditions rises with age
- Half of those aged 65+, and two thirds of those aged 85+ have 2+ long term conditions



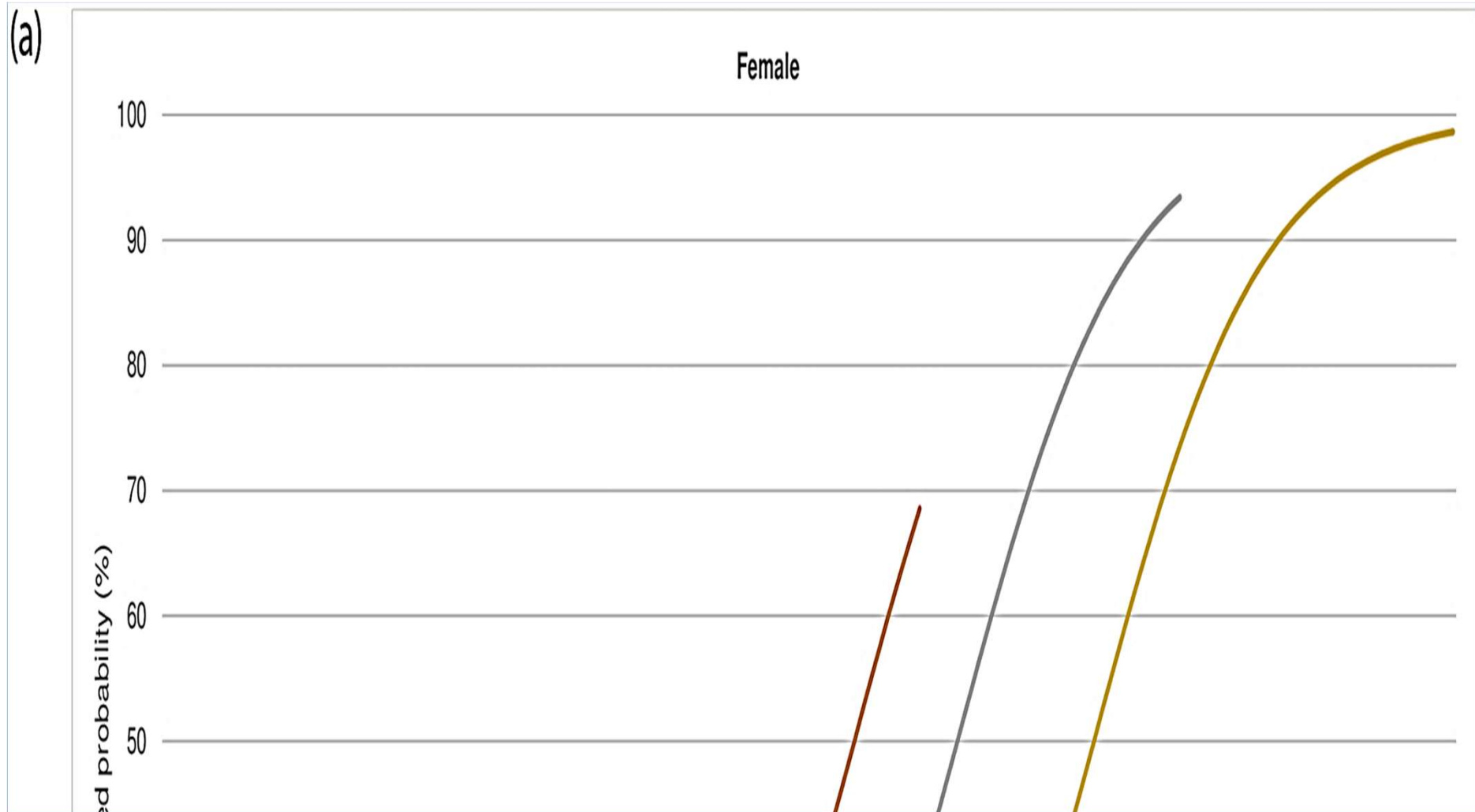
# Projections

- Number of people aged over 85+ will double in next 20 years
- By 2035:
  - % of population aged 65+ with **4+ conditions** will almost double
  - 34.1% of those with 4+ conditions will have mental health problems or dementia
- More people with MLTC under the age of 65 than over





# Projections by age group



Vos R, Boesten J, van den Akker M (2022) Fifteen-year trajectories of multimorbidity and polypharmacy in Dutch primary care—A longitudinal analysis of age and sex patterns. PLOS ONE 17(2): e0264343.



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Version V2.0 - 29th June 2022

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“The good news is that you have my favourite disease.”

# Specialisation in primary care





# Tension

Patients who use  
primary care have  
multiple diseases

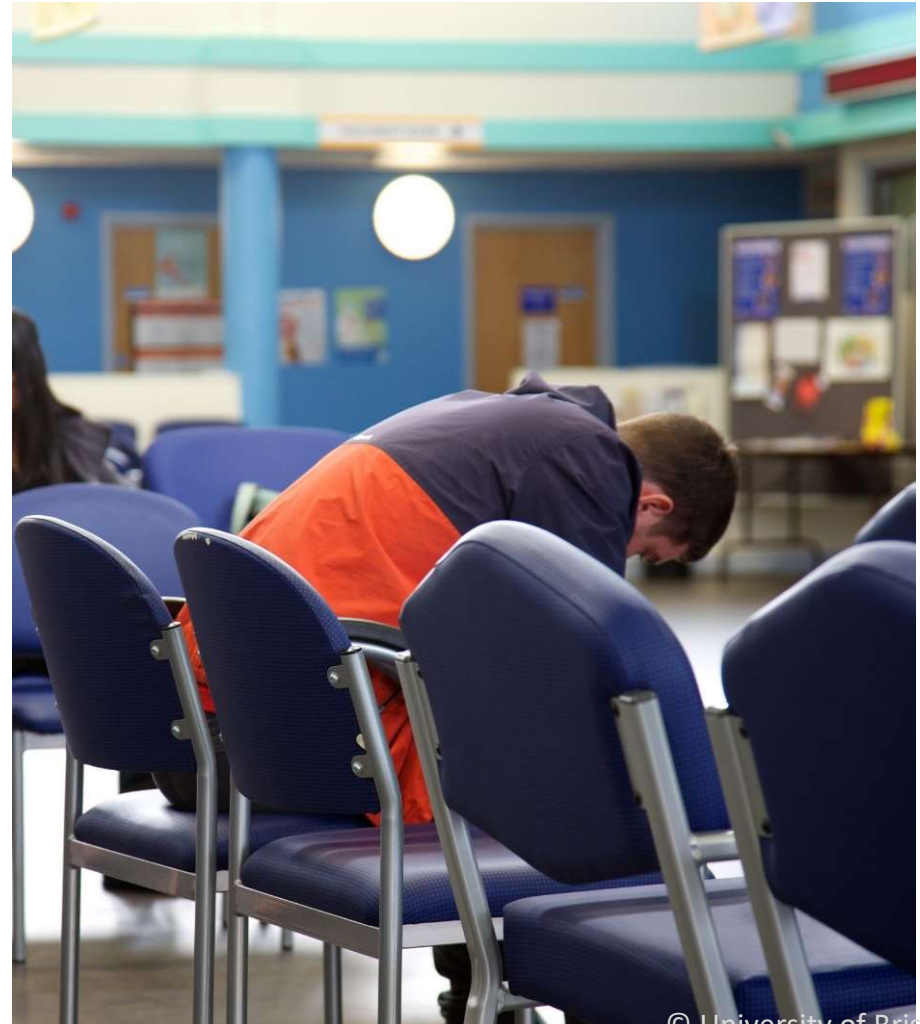


Primary care focus  
on single diseases

# Multimorbidity

- Poor quality of life
- Poor mental health
- High mortality

Illness burden







# Treatment burden





# BMJ Open Danish validation of the Multimorbidity Treatment Burden Questionnaire (MTBQ) and findings from a population health survey: a mixed-methods study

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**To cite:** Pedersen MH, Duncan P, Lasgaard M, *et al.* Danish validation of the Multimorbidity Treatment Burden Questionnaire (MTBQ) and findings from a population health survey: a mixed-methods study. *BMJ Open* 2022;**12**:e055276. doi:10.1136/bmjopen-2021-055276

► Prepublication history and additional supplemental material for this paper are available online. To view these files, please visit the journal online (<http://dx.doi.org/10.1136/bmjopen-2021-055276>).

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## ABSTRACT

**Objective** To validate the Danish Multimorbidity Treatment Burden Questionnaire (MTBQ) and obtain a population-based evaluation of treatment burden.

**Design** Mixed-methods.

**Setting** Danish population-based survey.

**Participants** Translation by professional translators and an expert group. The scale was tested by 13 407 participants (aged ≥25 years) in treatment.

**Measures** The 10-item MTBQ was translated into Danish using forward-backward translation and used in a large population health survey. A global MTBQ score was calculated and factor analysis and Cronbach's alpha assessed dimensional structure and internal consistency reliability, respectively. Spearman's rank correlations between global MTBQ scores and scores of self-rated health, health-related quality of life and the number of long-term conditions, respectively, assessed construct validity. MTBQ scores were grouped into four categories (no, low, medium, high burden) to assess interpretability

## Strengths and limitations of this study

- Using data from a large population health survey, we examined the validity of the Multimorbidity Treatment Burden Questionnaire (MTBQ) as a measure of treatment burden for identifying high-risk groups at the demographic level and guiding policy decisions and clinical practice.
- The response rate was high (64%), and weights were constructed to increase the generalisability of the analyses to the general population.
- A thorough process including forward-backward translation was undertaken to translate the MTBQ from English into Danish and to ensure the usability of the measure in a large population health survey.
- Establishment of content validity was out of scope for this paper and convergent validity was not established as the MTBQ was included in a comprehensive large-scale population survey, which precluded a comparative treatment burden measure



# Impact on the GP







# Impact on the GP



- Not the main problem
- Disease-by-disease checklists
- Care pathways by disease
- Trade-offs and competing risk
- Patient preference

# What do people with multiple long term conditions want from primary care?

- access to care when they need it
- continuity of care
  - someone who knows them as a person
  - knows about all of their relevant conditions
  - takes their concerns seriously
  - having someone to count on
- Someone with knowledge of local support services
- Better co-ordination of care





# A multimorbidity manifesto



The norm not the exception

A generic model of care

Individualised, personalised care

Whole person care

Continuity of care

Co-ordinated care

Simplify medication

Support for self-management

## Management of multimorbidity using a patient-centred care model: a pragmatic cluster-randomised trial of the 3D approach



Chris Salisbury, Mei-See Man, Peter Bower, Bruce Guthrie, Katherine Chaplin, Daisy M Gaunt, Sara Brookes, Bridie Fitzpatrick, Caroline Gardner, Sandra Hollinghurst, Victoria Lee, John McLeod, Cindy Mann, Keith R Moffat, Stewart W Mercer



### Summary

**Background** The management of people with multiple chronic conditions challenges health-care systems designed around single conditions. There is international consensus that care for multimorbidity should be patient-centred, focus on quality of life, and promote self-management towards agreed goals. However, there is little evidence about the effectiveness of this approach. Our hypothesis was that the patient-centred, so-called 3D approach (based on dimensions of health, depression, and drugs) for patients with multimorbidity would improve their health-related quality of life, which is the ultimate aim of the 3D intervention.

**Methods** We did this pragmatic cluster-randomised trial in general practices in England and Scotland. Practices were randomly allocated to continue usual care (17 practices) or to provide 6-monthly comprehensive 3D reviews, incorporating patient-centred strategies that reflected international consensus on best care (16 practices). Randomisation was computer-generated, stratified by area, and minimised by practice deprivation and list size. Adults with three or more chronic conditions were recruited. The primary outcome was quality of life (assessed with EQ-5D-5L) after 15 months' follow-up. Participants were not masked to group assignment, but analysis of outcomes was blinded. We analysed the primary outcome in the intention-to-treat population, with missing data being multiply imputed. This trial is registered as an International Standard Randomised Controlled Trial, number ISRCTN06180958.

**Findings** Between May 20, 2015, and Dec 31, 2015, we recruited 1546 patients from 33 practices and randomly assigned them to receive the intervention (n=797) or usual care (n=749). In our intention-to-treat analysis, there was no

Lancet 2018; 392: 41–50

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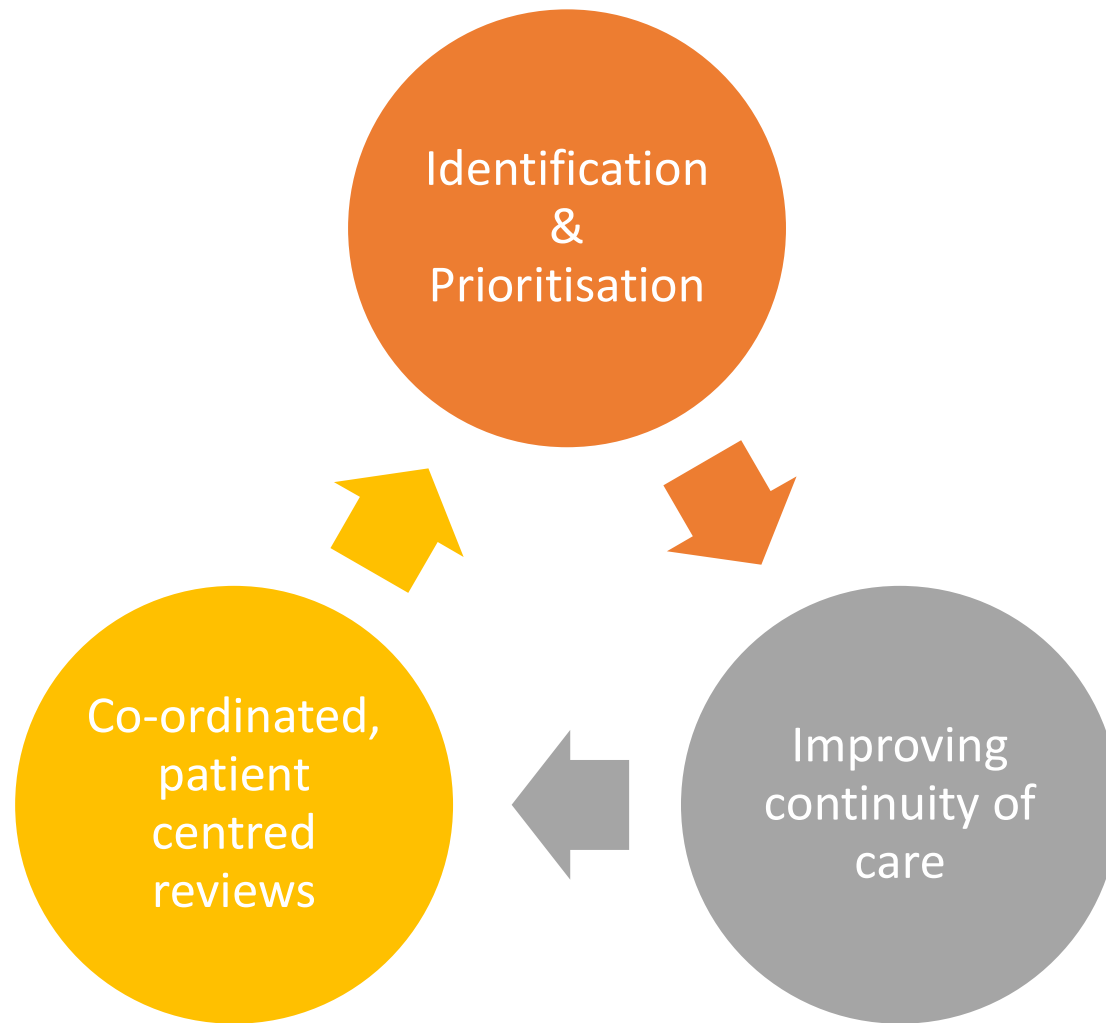
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# The 3D intervention



# 3D Trial

## Results on primary outcome EQ5D

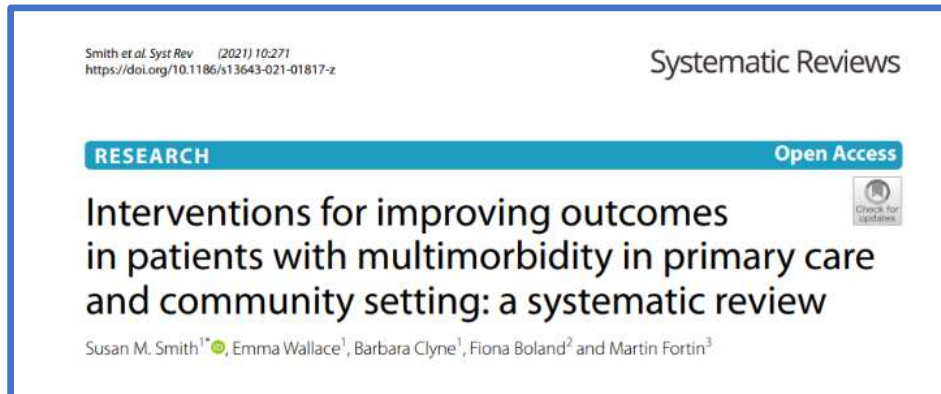
	Control (N=749)		Intervention (N=797)				
15 months	Mean (SE* or SD)	n	Mean (SD)	n	Adjusted difference in means (95% CI) <sup>1</sup>	P-value	ICC (95% CI)
1. Primary analysis	0.504 (0.012*)	749	0.533 (0.012*)	797	0.00 (-0.02, 0.02)	0.825	0.00 (0.00, 0.00)

<sup>1</sup>Adjusted by baseline EQ-5D-5L, site, GP practice deprivation score and list size, GP practice as random effect

- Improvements in patient's experience of care
- No significant different in cost



# Systematic Review of interventions



- 16 RCTs
- Little/no evidence of effect on primary outcomes of health related QoL or mental health
- Little or no effect, or mixed results, on:
  - clinical outcomes
  - psychosocial outcomes
  - function and activity
  - patient health behaviours
  - healthcare utilisation
  - patient satisfaction with services
- care coordination *may* improve patient experience of care
- self-management support *may* improve patient health behaviours.
- Overall, certainty of evidence low due to significant variation in study participants and interventions.

# Problems in research on interventions to improve care for multimorbidity

## Whole system change

- Model of care in general practice
- IT systems
- Referral to secondary care
- Clinician training

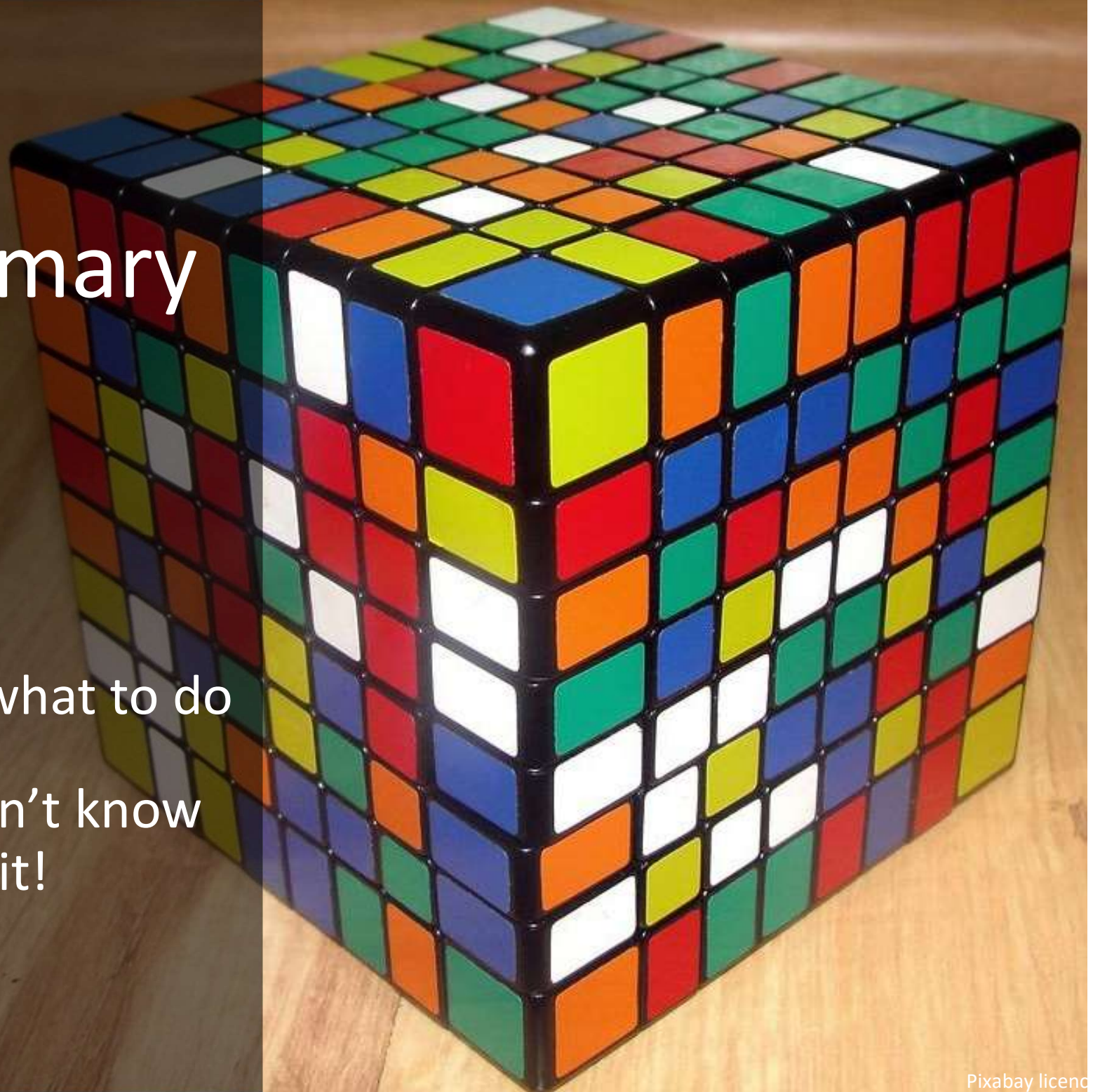
## Research problems

- Research different from real life
- Insensitive, generic outcomes
- Individualised outcomes
- Change takes time



# In summary

- We know what to do
- We just don't know how to do it!





Thank you 😊

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