



RESEARCH

INFORMATION

The prevalence, determinants and outcomes of multimorbidity and of resilience to multimorbidity



AIMS

To identify how multimorbidity and resilience to multimorbidity should be defined and measured, and to use these findings to measure how common they are, how mental health and childhood socioeconomic status affect them and what the outcomes are.



KEY FINDINGS

- Multimorbidity is the co-existence of two or more conditions in an individual
- Resilience is the ability to demonstrate healthy levels of function or wellbeing despite multimorbidity
- Multimorbidity is more common when measured using health conditions seen in primary care (general practice) compared to in hospitalised patients in middle age
- However, multimorbidity based upon conditions seen in hospital becomes more common with increasing age
- When individuals describe health conditions which negatively affect their lives, these conditions vary slightly from those seen in primary and secondary care
- The presence of resilience to multimorbidity is affected by which measure of resilience is used
- Having a mental health condition makes it more likely that an individual has multimorbidity and makes the prevalence of resilience slightly lower
- Birth social class (based on your father's occupation at your birth) is associated with an increased likelihood of multimorbidity in middle age, but not with resilience
- Having a higher educational attainment in later life lessens the effect of birth social class (multimorbidity is less likely)
- Multimorbidity from both self-report and secondary care is associated with a higher risk of death





WHAT DID THE STUDY INVOLVE?

To identify the most appropriate way to define and measure multimorbidity and resilience, two separate reviews of the published research literature were conducted. Two populations were analysed to assess how common multimorbidity and resilience to multimorbidity are and their causes and outcomes. The first was Diamond: Australian patients from General Practice who had responded to a questionnaire about health. The second was the Aberdeen Children of the 1950s (ACONF): individuals born in Aberdeen in the 1950s with data collected from school, a questionnaire in middle age and hospital records.

The public were not involved in this project, but members of the ACONF are involved in designing data collection for further research projects.



WHAT WERE THE RESULTS AND WHAT DO THEY MEAN?

Multimorbidity is the co-existence of two or more conditions in an individual. Resilience is the ability to demonstrate healthy levels of function or wellbeing despite multimorbidity. These were the first systematic literature reviews in these areas.

Primary care multimorbidity (Diamond study) was present in a third of individuals. Self-reported multimorbidity (ACONF questionnaire) was present in one in 20. In middle age, 3% had multimorbidity from hospital records and it rose to 1 in 10 (10%) by older age. Resilience prevalence varied by measure: ranging from between half to over 90% in Diamond and between 20% to over 90% in ACONF. No previous study has comprehensively studied multimorbidity and resilience prevalence in this way.

Having a mental health condition made it more likely that an individual had multimorbidity and made the prevalence of resilience slightly lower (a novel finding). Birth social class was associated with multimorbidity. Having higher educational attainment in later life lessened the effect of birth social class. Multimorbidity from self-report and hospital records was associated with a higher risk of death. These findings provide important new evidence regarding multimorbidity causes and outcomes from a “whole of life” perspective.

Members of the
Aberdeen Children of
the 1950s cohort at their
2015 engagement event





WHAT IMPACT COULD THE FINDINGS HAVE?

- The reviews of the multimorbidity and resilience literature provide recommendations which should improve consensus over the definition and measurement of both resilience and multimorbidity
- Mental ill-health not only increases the likelihood of physical disease multimorbidity but reduces resilience in the face of multimorbidity: ongoing focus upon preventing, detecting and treating mental ill-health is needed by healthcare practitioners and policy makers
- Birth social and economic factors influence later life health and should be an important focus of public health policy making



HOW WILL THE OUTCOMES BE DISSEMINATED?

Research is being disseminated by: publication (3 papers to date and 2 further in draft); conference presentation (3 to date); social media; public engagement (Explorathon 2017 and May Festival 2019).

The study highlights important determinants and outcomes which can be used to develop life-course models of multimorbidity and resilience in future research.

The ACONF cohort has much potential as the participants age and health conditions become more common. Enriching it with further information (for example with General Practice records and further surveys) will make it an invaluable source of information on ageing, resilience and multimorbidity.



CONCLUSION

The study provides recommendations as to how multimorbidity and resilience to multimorbidity should be defined and measured.

Multimorbidity places a burden on individuals and is associated with poorer outcomes. The study highlights the importance of both mental health conditions and social and economic factors (including the occupation of your father at your birth) in the occurrence of multimorbidity and resilience.



RESEARCH TEAM & CONTACT

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Additional Information

Project completed 31st May 2019. Total funding received: £184,483