The Psychology of Prescribing

Professor Patrick Callaghan
13 March 2018

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"The fool doth think he is wise, but the wise man knows himself to be a fool"
(Shakespeare, As You like it, Act 5 Scene 1)

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Outline of session

- Examine the role of 'psychological' issues in prescribing
- Understand how to apply evidence from psychology into prescribing practice
- Improve your prescribing practice

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Food for thought

- 50% of people do not take prescribed medicine
- £230m of medicines returned to pharmacies each year
- $100bn lost in US
- £1.03bn cost of prescribing in UK in past 12 mths; up 3.4%
- Poor non-adherence is linked to poorer outcomes

http://journal.publications.chestnet.org/article.aspx?articleid=1210785
file:///C:/Users/ntzpc2/Downloads/mm-adherence-2012-final-1.pdf

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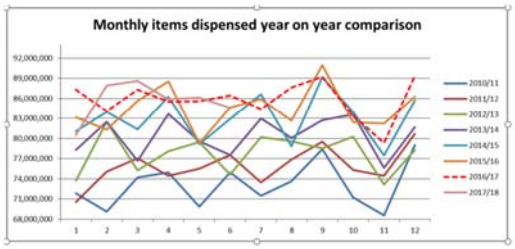
Year on Year Monthly Items Dispensed



*http://psnc.org.uk/funding-and-statistics/nhs-statistics/

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The University Of Sheffield.

UNIVERSITY of York

MANCHESTER

EEPRU Policy Research Unit in Economic Evaluation of Health & Care Interventions

Policy Research Unit in Economic Evaluation of Health & Care Interventions (EEPRU)

PREVALENCE AND ECONOMIC BURDEN OF MEDICATION ERRORS IN THE NHS IN ENGLAND

Rapid evidence synthesis and economic analysis of the prevalence and burden of medication error in the UK

Authors: Rachel A Elliott[1], Elizabeth Camacho[1], Fiona Campbell[2], Dina Jankovic[3], Marrissa Martyn St James[2], Eva Kaltenthaler[2], Ruth Wong[2], Mark J Sculpher[3], Rita Faria[3]

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Division of Population Health, Health Services Research and Primary Care,
School of Health Sciences, The University of Manchester
[2] ScHARR, University of Sheffield
[3] Centre for Health Economics, University of York

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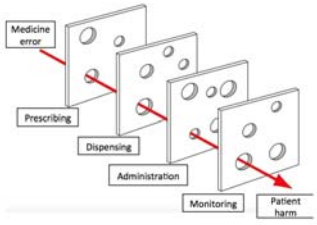
How errors occur



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Burden of medication errors in UK

- 5 days more LOS
- Costs £98.5m/annum
- Using 181,626 bed days
- Causing 712 deaths; contributing to 1708!
- Including A&E and ICUs:
- Costs NHS £188.4m/annum; using 185,814 bed days; contributing to 1855 deaths
- Including Primary Care: errors add 14.25 days LOS; costs £1.6Bn; using 3.8 million bed-days, contributing to 22,303 deaths!

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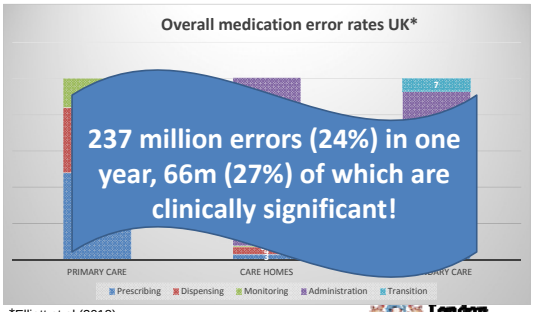
Medication errors



*Elliott et al (2018) http://www.eepru.org.uk/wp-content/uploads/2018/02/medication-error-report-revised-final.2-22022018.pdf

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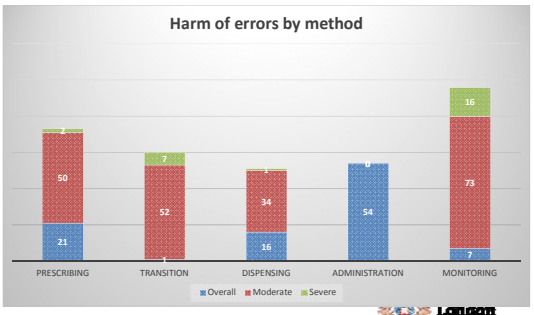

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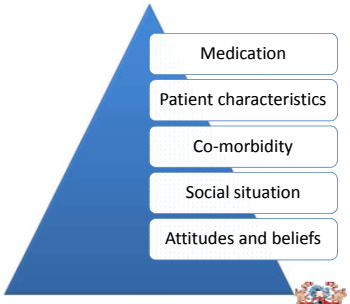
Factors affecting adherence rates



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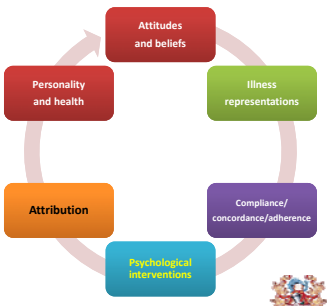
Psychological issues in prescribing



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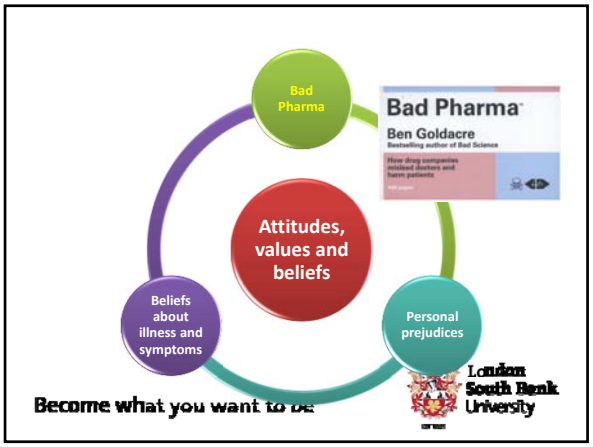
Bad Pharma
Bad Pharma
Ben Goldacre
Attitudes, values and beliefs
Beliefs about illness and symptoms
Personal prejudices
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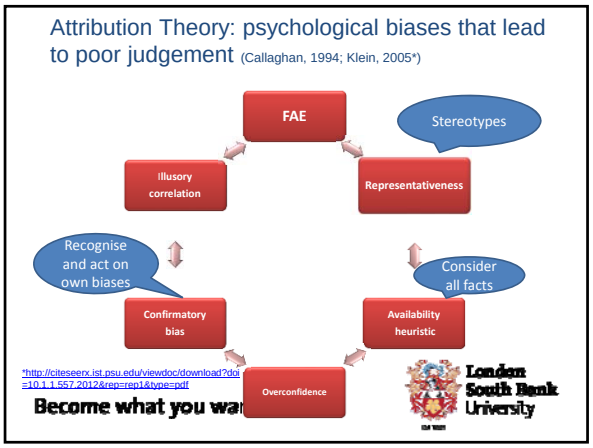
Attribution Theory: psychological biases that lead to poor judgement (Callaghan, 1994; Klein, 2005*)
FAE
Stereotypes
Illusory correlation
Representativeness
Recognise and act on own biases
Consider all facts
Confirmatory bias
Availability heuristic
Overconfidence
*http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.557.2012&rep=rep1&type=pdf
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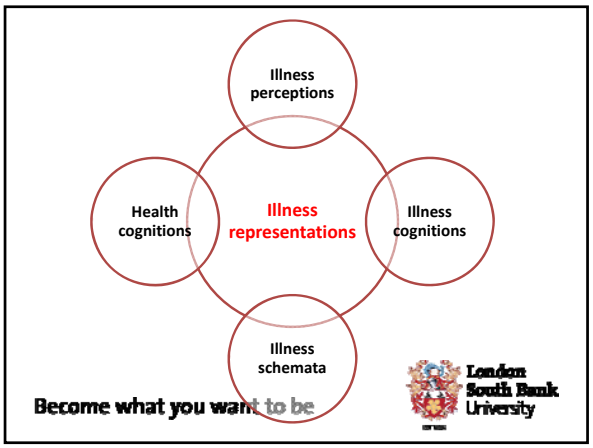
Illness perceptions
Health cognitions
Illness representations
Illness cognitions
Illness schemata
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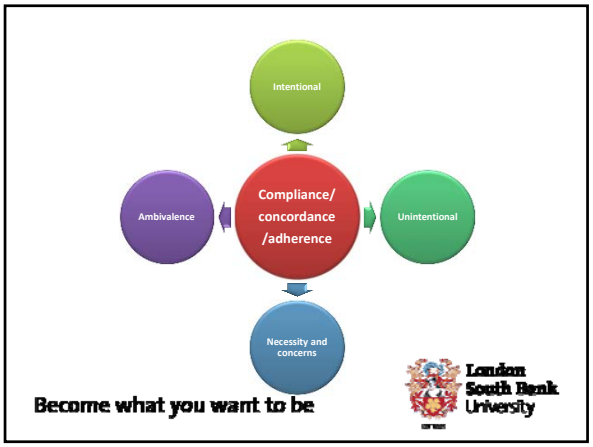
Intentional
Ambivalence
Compliance/ concordance /adherence
Unintentional
Necessity and concerns
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Personality and health
Self-efficacy
Locus of control
Hardiness
Five factor model
Stress and coping
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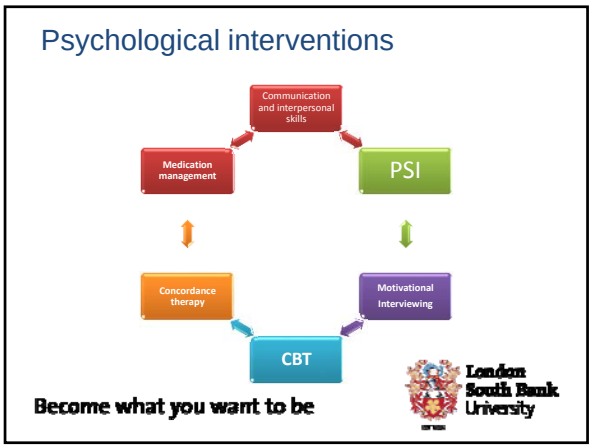
Psychological interventions
Communication and interpersonal skills
Medication management
PSI
Concordance therapy
Motivational Interviewing
CBT
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Sources of medication errors (*Tully et al, 2009)

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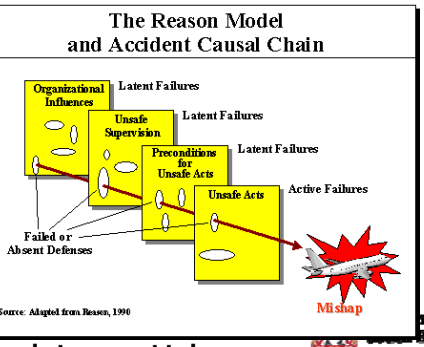
*Tully et al. (2009) The causes of and factors associated with prescribing errors in hospital inpatients: A systematic review. Drug Safety, 32 (10): 819-836

The Reason Model and Accident Causal Chain



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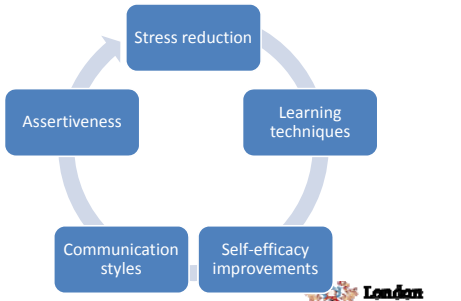
Reducing errors: the role of psychology



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Key messages

A fundamental understanding of psychological issues and principles will:

- Enable you to better understand people's responses to health, illness and its treatment
- Help you use evidence-based psychological interventions with ease
- Enhance your prescribing practices, make them safer and reduce error risk

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Recommended reading

- Abraham, C. & Michie, S. (2008) A taxonomy of behavior change techniques used in interventions. *Health Psychology*, 27, 3, 379-87
- Ayers, S.; Baum, A.; McManus, C.; Newman, S.; Wallston, K.; Weinman, J.; & West, R. (2007, Eds.) *Cambridge Handbook of Psychology, Health and Medicine. 2nd Edition.* Cambridge, Cambridge University Press
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- Kahneman, D. (2011) *Thinking, Fast and Slow.* London, Penguin Books
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- Klein, J.G. (2005) 5 Pitfalls in diagnosis and prescribing: psychological biases that can lead to poor prescribing. Accessed from http://www.aikconsulting.com/BMJarticle.pdf on 6th January 2014
- Kahneman, D. & Sunstein, C. (2013) *Nudge: Improving decisions about health, wealth and happiness.* New Haven & London, Yale University Press

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