

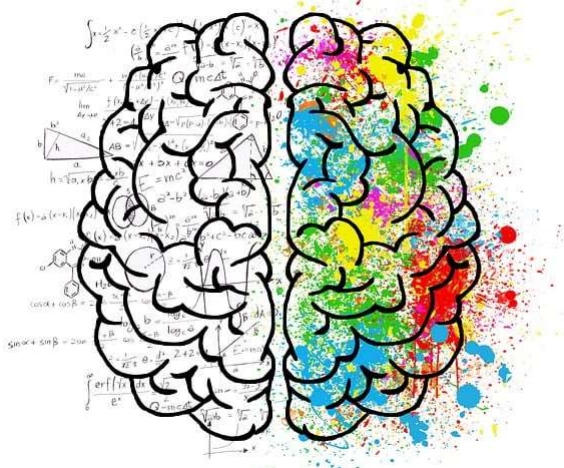
BMHP6029

Psychopathological Classifications and Provisions

Week 10

Debates and emerging issues

November 2024



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Which psychotherapy?

Brain disorder debate

Biopsychosocial model of mental health

**Issues about classification, introducing
transdiagnostic approach**

Neurodivergence

COVID and Mental Health

Digital technology and Mental Health

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In search of a silver (and scientifically plated) bullet in psychotherapy

Systematic reviews on CBT in randomised controlled trials show it is effective for a range of psychiatric disorders including anxiety, depression, OCD, bulimia, stress and developmental disability such as ADHD) in the short term (Cuijpers et al., 2023; Nakao, Shiotsuki & Sugaya, 2021)

- Studies on long-term effect show the use of CBT effective in managing mild/ anxiety in OCD

However, efficacy of psychodynamic psychotherapy was overlooked despite various scientific reviews and meta-analyses (Shetler, 2010)



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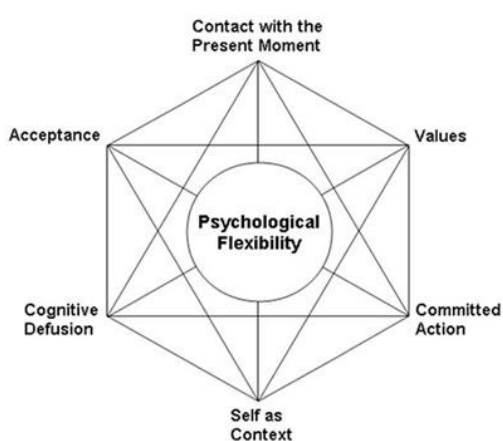


Illustration of the components of Acceptance Commitment Therapy

- There are more recent psychotherapy techniques such as Acceptance Commitment Therapy (ACT), mindfulness and positive psychology approaches (van Agteren et al., 2021; Wood et al., 2020). As well as some overlapping techniques with psychodynamic therapy, these more recent techniques may be combined or incorporated in CBT.
- Research findings are mostly based on the improved symptoms. There are recent calls for also incorporating research findings from the psychosocial pathways to wellbeing

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Meta analysis of effectiveness of psychotherapy on mental wellbeing by three populations (van Agteren et al., 2021)

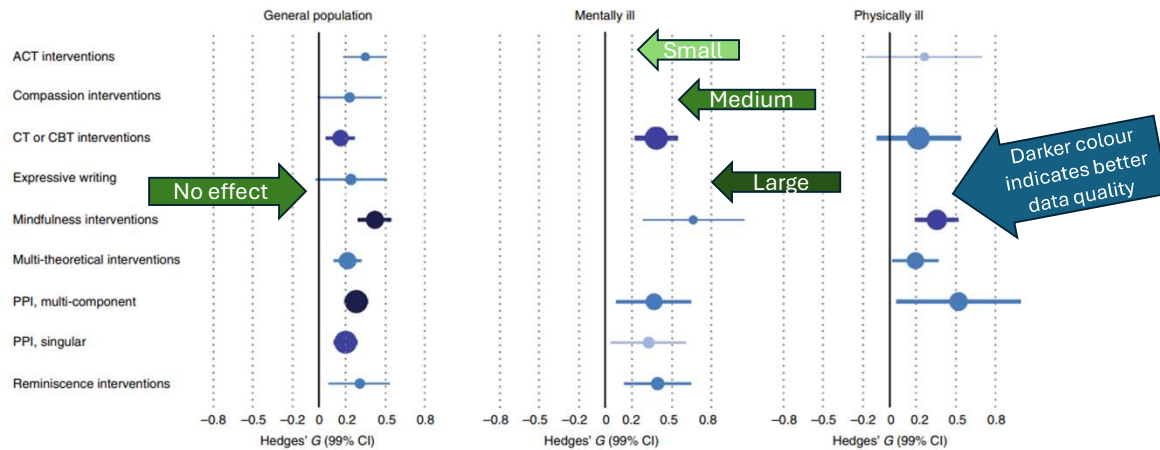


Fig. 3 | Forest plot visualizing the impact of each intervention type on overall wellbeing compared with control conditions split by population type. Horizontal bars show 99% confidence intervals, with interventions having a significant effect denoted by horizontal bars that do not touch the solid vertical line (the line of no effect). The dashed lines indicate small ($g=0.2$), moderate ($g=0.5$) or large ($g=0.8$) effects. Circle sizes reflect the weight of the overall study. The colours denote the evidence quality, based on grade recommendations¹⁹ for high (dark purple), moderate (purple), low (blue) and very low (light blue) evidence quality. Only intervention types with more than four studies were included in the meta-analysis and were displayed in the forest plot. Specific effect sizes and other statistics applying to this forest plot are presented in Table 3. CT, cognitive therapy.

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What have we learned from van Agteren et al's meta-analysis (2021)?

- Increasing evidence for elevating mental wellbeing as a therapeutic route to prevention as well as clinical and personal recovery.
- The efficacy of the psychotherapy is determined by an array of dynamic factors:
 - For the mentally ill and the general populations: higher intensity and group-based interventions led to higher effect sizes
 - For the physically ill: level of intensity does not matter but individual and technology-based interventions worked better
 - CBT interventions were impactful in the wellbeing of the mentally-ill group only
 - Multiple-component positive-psychology (PP) and mindfulness-based interventions showed higher effectiveness across all three groups

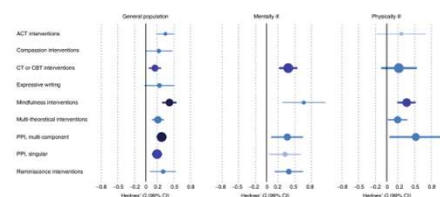


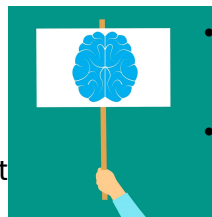
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Complex interrelationship between clinical symptoms, distress and levels of wellbeing
Effort is an important determinant
Combining multiple PP and mindfulness-based interventions most effective
Practitioners could consider also using CBT as a familiar technique for patients' wellbeing as part of the recovery process

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The brain disorder debate: neurobiological base of mental health

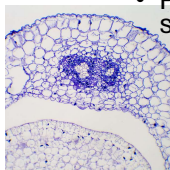
- Mental illnesses can be explained in neurobiological terms
 - Research for useful biomarkers of treatment response
 - Medical care intervention informed by neuroscience and genetics
 - Aim to eradicate symptoms
 - Medication is more effective than psychotherapy (Cuijpers et al., 2015)
- Mental illnesses cannot be explained solely in neurobiological terms
 - 'Difficult lives explain depression better than broken brain' (Moncrieff et al., 2024)
 - Focus on functional and social recovery, not to strive for symptom free
 - Keys to functional and social recovery: People, places and purpose (Insel, 2022)



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Long standing Bio/neurological explanation of depression

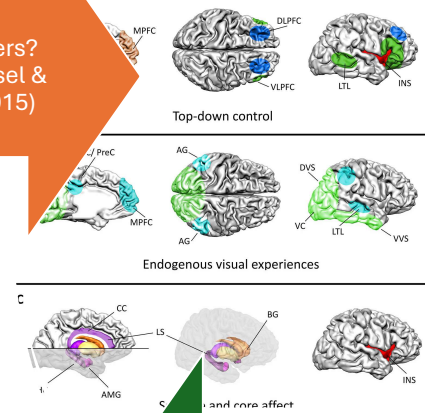
- The serotonin hypothesis of depression
 - Depression is caused by low serotonin (one of neurotransmitters) levels of activity
 - Serotonin regulates bodily functions such as waking up, sleeping and regulates emotions
 - SSRI second generation anti-depressant slows down serotonin being absorbed by the body and helps keeping it active in the brain
 - Physical exercise helps boost serotonin
- Recent meta-analyses and systematic reviews on depression show inconsistent findings
 - Replication crisis
- Chemical effect on the brain via medication is present and strong but not therapeutic in around half of patients with depression (Fountoulakis et al., 2024; Moncrieff et al., 2024)
- Withdrawal or adverse effect of medication does not lead to worsening depression or psychosis (Fountoulakis et al., 2021; Lecucht et al., 2012)



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Neuroscience and mental disorders

Brain disorders?
Precisely! (Insel & Cuthbert, 2015)



Brain disorders? Not
really....(Borsboom,
Cramer & Kalis, 2019)

“Logically, if these are disorders of brain systems, then the visualization of abnormal patterns of brain activity should detect the pathology of these illnesses (Insel & Quirion, 2005. p. 2023).

- Biomarkers for specific mental disorders have not been determined
 - Findings from decades of studies using functional neuroimaging techniques are mostly inconsistency (Moncrieff et al., 2024; Muller et al., 2017)
 - Replication crisis where previous research findings cannot be reliably replicated and confirmed
- Neuroscience research has not yet led to a clear pathology of mental disorders (Valtonen & Lewis, 2023)

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- 70% of people meet criteria for clinical depression or anxiety by age 45 (Caspi et al., 2020; Moncrieff et al., 2024)

- Does this mean 70% of people having some kind of biological defects???
- In the absence of convincing pathological process, depression is part of emotional reactions to circumstances of life (Moncreiff et al., 2024)
 - Genetic link
 - Personality and predispositions
 - Past experience



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The Psychosocial Model of Mental Health

Going around in full circle? Not entirely: Shifted from person-focused explanation for MH issues to biopsychosocial perspective of mental health conditions and care (Porter, 2020).

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Classification and Reclassification: categorical or dimensional?

Rabbit or Duck?



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ICD-10 and ICD-11 mostly a categorical approach in classifying mental phenomena by self-reported or clinically observable symptoms (Gaebel et al., 2020)

- Presence of a number of symptoms from the ICD list for a categorical diagnosis
- Challenges arise from assigning a category/label to overlapping symptoms and difficulties experienced by individuals across conditions
 - High level of symptoms variability within each category
 - Different diagnostic labels could be given to the same person as they seek treatments
- Most of the aetiology of MH conditions is unknown. Yet commonly having comorbidity with other physical and/or MH conditions

Dimensional diagnostic approach considers severity of a symptom or degree of dysfunctions for each condition/label

- Adapted in DSM 5 and to some extent in ICD-11
- Increasing complexity in clinical assessment and leading to reduced clinical utility

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Classification in need of a revolution?

- Clinicians facing challenges in making diagnosis due to increasing number of conditions and complexity in recent versions of DSM 5 and ICD-11
- Widely recognised in adult psychopathology, the diagnostic systems were inadequate in capturing the nature and range of individual difficulties (Astle et al., 2022; Cuthbert & Insel, 2013; Etkin & Cuthbert, 2014)
- Several new approaches have been put forward to address the challenges in current diagnostic systems
 - Reverse nosology is one of these: diagnostic categories are based on similar neuro activation patterns
 - Difficult link between observable behavioural psychopathology and neuroimaging
 - No consistent neuroimaging data even within one single condition, for example, depression.



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Needs-based approach? Taking a leaf out of the educational system

- Moving away from diagnosing which disability or impairment a child or adolescent has to focus on identifying needs and resources in the EHCP that covers *educational, health* and *care* aspects in the plan
- Since symptoms and difficulties overlap between MH conditions, treatments for some MH conditions also share some overlaps, maybe we should focus on providing integrated care and treatments that a person needs, rather than worrying about giving distinctive labels and providing specific services?



The mental health condition is often seen before the neurodevelopmental differences, and both need to be tackled together. Where is the joined-up thinking within these services in the NHS?



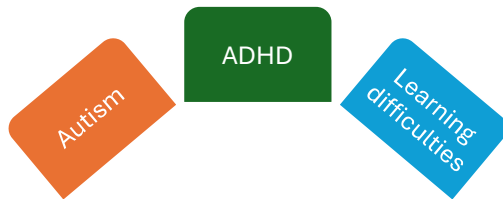
Advisory Group

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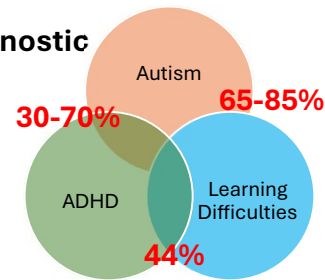
Contrast between the two research designs

Traditional



Recruit three groups of participants with a 'clean-cut' profile/diagnosis to explore the impacts of executive control on their anxiety
Findings could be used to inform practice

Transdiagnostic



Recruit participants to explore the impacts of executive control on their anxiety
Findings could be used to inform practice

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Transdiagnostic model and approach

There are many overlaps between different neurodevelopmental disorders such as ADHD, autism, dyslexia and dyspraxia at behavioural, neurological level as well as risk factors, despite their distinct presentations



"The transdiagnostic approach to mental health is the proposal that there are common factors or processes that are shared across diagnoses, and that understanding them and researching them will lead to significant advances in how we treat problems that negatively affect mental health, and help reduce psychological distress (Mansell & Tai, 2022)."

Transdiagnostic treatments approach

- The maintenance of symptoms across different eating disorders often share similar factors. Loeb et al (2012) proposed a transdiagnostic model of family-based therapy to work with patients and family across different subtypes of eating disorder
- Transdiagnostic approaches (e.g. CBT for low self-esteem (Kolubinski et al. 2018))

The transdiagnostic revolution in neurodevelopmental disorders (Astle et al., 2022)

- Look beyond and across different diagnoses
- Fundamental changes in formulation of research questions and research design

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Neurodivergence and mental health

Nikolic et al's (2024) study with 509 individuals with autism and ADHD in the UK, found

- 1) presence of neurodivergent traits affected the higher use of both emergency MH services and in-patient MH units compared to neurotypical group
- 2) people with a diagnosed neurodevelopmental condition used emergency MH services more and with longer admission in MH hospitals
- 3) people suspected neurodivergence had similar findings to 1) & 2) and experienced first psychotic symptoms at younger age (also reported by Rho et al., 2017)

Neurodivergence affirming therapy

Consider sensory experiences and profiles
Recognising dysfunction as relational rather than individual.

Accepting difference and pride of neurodivergent identity and community (Chapman, 2022): beneficial to both autistic individuals and their family

Free from *neuro-normativity* interventions such as ABA or social skills training (Therapist Neurodiversity Collective, n.d.)

Focusing on the lived experience and collaborating for neurodivergent thriving
Recognising neurodivergent individuals may have been traumatised by their previous service experiences

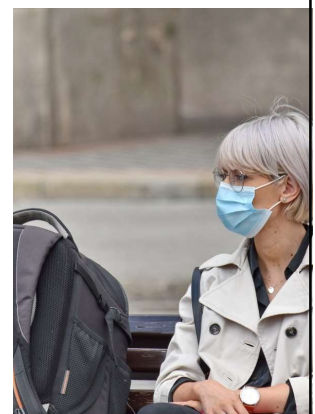
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Mental Health in and out of Pandemic

COVID triggered 25% increase in prevalence of anxiety and depression worldwide (WHO, 2022)

- Multiple stress factors: sense of isolation and loss, physical health, psychosocial factors, financial worries
- Young people and women more vulnerable in the world (WHO, 2022), young girls in UK showed more deterioration (Montero-Marín et al., 2023) People with preexisting MH issues not disproportionately vulnerable during COVID, but the impacts on their MH more severe when they were infected
- Unique impacts on specific groups (NIMH, 2024) and gaps in care: re our previous discussion on stigma and health inequality

People hospitalised due to COVID continued to experience cognitive and psychiatric problems 2-3 years post COVID (Taquet et al., 2024)



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See some of the functions used in SilverCloud app

Figure shows overview of telecommunication and digital technologies that can be used for remote mental health care (Guest et al., 2023).

Use of SilverCloud improved feeling of anxiety and depression after 8 weeks during COVID for people due to social, behavioural or economic reasons but not for those with chronic medical reasons (Batholmae et al., 2023).

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Mental Health in the digital landscape

- According to Mental Health Network (2023), digital technology can be used to
 - Improve access
 - Provide early intervention and prevention
 - Implementing new ways of reaching people
 - help to meet the demand supply gap
 - open up access so that inequalities in access to healthcare and support for mental health are reduced.

Some of the timescales for digital mental health care outlined in Topol Review (2018) have become our every reality in recent years, partly due to the need to adapt practice during the recent pandemic. Two of the three key areas

Digital medicine:

- Telemedicine, VR and AR technology for phobic and psychotic symptoms (e.g. public speak), Smartphone apps, mobile apps

AI and robotics:

- 59% had engaged with automated or web-based mental health support systems (Health Innovation Network: South London, n.d.).

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Challenges and next steps (Smith et al., 2023): anything else missing?

Techniques for gathering new data

- Transdiagnostic approaches
- Machine learning approaches

Designing interventions

- Choice of placebo
- Preventative interventions: physical health interventions in those with mental illness

combining real-time assessments with intervention

Implementation in the real-world clinical setting

- Issues related to clinical decision making
- Education and training
- Policies in organisations and healthcare systems

Developing implementation studies

- Reporting guidance
- Accessibility and codesign with service users