

Depression Community Session: 16 of April, 2024

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Background

The National Institute for Health and Social Care Research (NIHR) currently funds 20 Biomedical Research Centres (BRCs) across England. These are collaborations between world-leading universities and NHS organisations that bring together academics and clinicians to translate lab-based scientific breakthroughs into potential new treatments, diagnostics, and medical technologies. The Imperial BRC is a collaboration between Imperial College, London and Imperial College Healthcare NHS Trust (ICHT) and is currently funded until November 2027. It has 14 research themes, four of which are cross cutting.

The Imperial Patient Experience Research Centre (PERC) is a core facility of the Imperial BRC undertaking research on research and supporting Imperial BRC researchers to undertake public involvement and engagement in research. PERC recognises that involving a diverse range of patients and members of the public in research is essential for ensuring that research is relevant, meaningful, and useful for improving healthcare experiences and outcomes for all. PERC is seeking to establish relationships with under-represented and under-served communities in North West London to engage a more diverse range of patients and members of the public in research. By working closely with these communities, PERC seeks to ensure that research is tailored to their specific needs and priorities, and that their voices are heard in healthcare decision-making.





Approach and purpose

EKTA Community is a mental health support group located in Harrow, catering to individuals aged 55 and above. Run entirely by a dedicated committee of volunteers, the group hosts bi-weekly social events featuring activities like yoga and painting. EKTA convenes monthly gatherings, complete with lunch, where members can enjoy informative sessions covering a wide range of topics, from health-related matters to finance and energy management. The group's mission is to offer assistance to South Indian mental health service users residing in Harrow. With a membership of 80 individuals, predominantly elderly residents of Harrow, EKTA plays a crucial role in providing a sense of community, facilitating knowledge exchange, and offering support to combat issues such as loneliness among its members.

In a previous session with EKTA, we utilised feedback forms to gain valuable insights into the community's interests regarding healthcare topics. The primary aim of these forms was to identify preferences and specific areas of health research that community members wished to explore further. After analysing the feedback and consulting with community leaders, we determined that the subsequent session would focus on depression, presented by <u>Dr. Parry Hashemi.</u>

Dr. Hashemi holds an MSci degree in Chemistry from King's College London. She completed her PhD under the supervision of Martyn Boutelle in the Department of Bioengineering at Imperial College London, where she developed innovative online biosensing technology to measure brain metabolites in patients with traumatic brain injuries. Following her PhD, Dr. Hashemi relocated to Chapel Hill, NC, where she collaborated with Mark Wightman. During this time, she mastered fast scan cyclic voltammetry (FSCV) at carbon-fibre microelectrodes (CFMs) and pioneered the first method for measuring serotonin in vivo using FSCV. Dr. Hashemi and her team have returned to Imperial College, where they are addressing some of the world's most pressing issues through analytical engineering.

Session overview

The session occurred on Tuesday 16th of July 2024, from 11am to 2pm at a community hub used by EKTA, and was delivered by Dr Hashemi.

What is Depression: The session began with a comprehensive definition of depression, highlighting common symptoms such as persistent sadness, loss of interest in activities, and changes in appetite or sleep patterns. Attendees learned about the different types of depression, including major depressive disorder, persistent depressive disorder, and seasonal affective disorder. This foundational knowledge set the stage for a deeper exploration of the condition.

Neurochemistry of Depression: A key focus of the session was the neurochemistry of depression. An explanation was provided regarding the brain chemicals, or neurotransmitters, involved in mood regulation, specifically serotonin, dopamine, and norepinephrine. The discussion illuminated how imbalances in these





neurotransmitters can contribute to the symptoms experienced by individuals with depression, emphasising the biological underpinnings of the condition.

Are Certain People Affected by Depression More Than Others? The session examined various factors that may increase the risk of developing depression. Attendees learned about genetic predispositions, family history, traumatic life events, and chronic stress as significant contributors. Additionally, sociodemographic factors, including gender, socioeconomic status, and cultural background, were discussed in relation to their influence on depression prevalence, illustrating how the condition affects diverse populations differently.

Age and Depression: Another crucial aspect of the session was the examination of how depression presents differently across age groups. The speakers discussed the unique challenges and risk factors faced by older adults, such as retirement, loss of loved ones, and various health issues. Understanding these differences is vital for tailoring appropriate support and interventions for different age demographics.

Discussions in the Q&A:

Treatments for Depression The overview of treatment options provided a balanced perspective on managing depression. Attendees learned about common antidepressant medications, including selective serotonin reuptake inhibitors (SSRIs) and serotonin-norepinephrine reuptake inhibitors (SNRIs). Non-medication treatment options, such as psychotherapy (including cognitive-behavioural therapy and interpersonal therapy) and lifestyle modifications, were also highlighted, showcasing a holistic approach to treatment.

Why Treatments Don't Work for Everyone? The session concluded with a discussion on the reasons some individuals may experience treatment resistance or lack of effectiveness. Factors such as medication side effects, inadequate dosage or duration, and underlying medical conditions were identified as potential barriers to successful treatment. The importance of personalised treatment plans and the necessity for ongoing monitoring and adjustment were emphasised, reinforcing the idea that effective management of depression requires a tailored approach.

Attendee recruitment

The session was promoted internally through EKTA group's communication channels, primarily via email and WhatsApp. The email invitation provided attendees with an overview of the upcoming event, featuring Dr. Parry Hashemi as the main speaker. Dr. Hashemi, an expert in neurochemistry, discussed the neurochemical underpinnings of depression, particularly the relationship between serotonin and histamine in the context of neuroinflammation and its comorbidities. The communication outlined key discussion points, including the role of neurotransmitters in mood regulation, the impact of neuroinflammation on mental health, and innovative approaches to treatment. Additionally, PhD student Naima Adan shared insights from her research on observing neuroinflammation on chip.





Emphasising the significance of understanding depression from both a neurochemical and research perspective, the session aimed to equip attendees with knowledge that could enhance their awareness of mental health issues and foster informed discussions within the community.

Outcome of session

The session was attended by 52 members of the public of which 28 completed feedback forms (N=28). Attendees were asked to provide feedback by completing a handwritten form, see **Appendix 1**. 28 feedback forms were completed and collated in **Appendix 2**.

Attendee numbers

52 members of the public, primarily from the Harrow area and part of the EKTA community group, attended the session. For a detailed demographic breakdown of these attendees, along with their feedback, please see **Appendix 2 and 3**. Photos from the event are available in **Appendix 4**.

Feedback on the session

Attendees gave their feedback forms found **Appendix 1**. The completed feedback forms have been compiled and are presented in **Appendix 2**.

Promoting the Imperial BRC and widening the reach of Imperial BRC community engagement

Recognising that depression is a significant concern for many within this group, the Imperial BRC aims to address this topic. Building trust is paramount in their efforts, and this is done by inviting speakers who can provide insights on specific topics that matter to the community members. By focusing on relevant subjects and engaging knowledgeable speakers.

In addition to community engagement, Imperial is actively involved in cutting-edge research on mental health. The researchers are exploring various aspects of mental health, including the neurobiological mechanisms underlying disorders, the efficacy of new treatment modalities, and the impact of social determinants on mental health outcomes. This research not only contributes to the academic understanding of mental health but also informs their community initiatives, ensuring that these initiatives are grounded in the latest scientific evidence.







Appendix 1: Feedback form

nperial College ondon	FEEDBACK FORM - Depression session - 16th July 2024				
I. How would y	you rate your experience at this event? (please circle)			
	Very bad Bad Average Good Excellent				
2. What was the key highlight from this session?					
3 . Did the scientific information provided relate to your personal experiences with mental health and mental health services?					
experiences	with mental health and mental health services?				
experiences	with mental health and mental health services?				
	healthcare topics would you like to hear about at				
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Y. What other future sessi	healthcare topics would you like to hear about at ons? Appy to share my				
Y. What other future sessi I am also ha age	healthcare topics would you like to hear about at ons? Appy to share my No, thanks Sure, it's:				
 4. What other future sessi 1 am also ha age ethnicity 	healthcare topics would you like to hear about at ons?				
4. What other future sessi I am also ha age ethnicity gender postcode (first section only) Intereste	healthcare topics would you like to hear about at ons?				

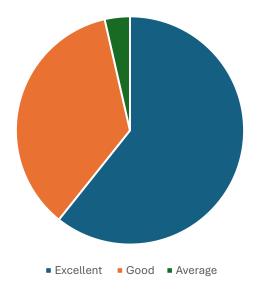
Imperial College London Community Feedback on Depression			
I. Do you feel comfortable discussing mental health? 2. Do you have depression? Yes No			
3 . How long have you experienced depression? 1 year or less 1-5 years 6-10 years 10 years+			
Y . What symptoms of depression do you experience?Persistent sadnessChanges in appetiteFatigueLoss of interest in activitiesSleep disturbancesFeelings ofThoughts of death or suicideDifficulty concentratingWorthlessnessOther (please specify):			
5. Do you receive treatment for depression? (e.g., SSRIs, therapy) Yes NO If yes, what type of treatment do you receive?			
6. How do these treatments make you feel? Much better Somewhat better Somewhat worse Much worse			
7. Do you feel there are specific needs or challenges faced by your community in relation to depression that are not being addressed by current research?			
NIRC Research Centre Thank you for your feedback! Imperial College Healthcar			



Appendix 2: Attendee feedback

How would you rate your experience at this event?

Out of the 28 feedback forms returned, 61% (n=17/28) rated the event as "Excellent," while 36% (n=10/28) rated it as "Good," and 3% (n=1/28) as " Average."



What was the key highlight from this session?

Understanding Depression:

- Attendees appreciated learning that they are not alone in experiencing depression.
- There was a focus on understanding different types of depression and their implications.

Research and Treatments:

- Discussions covered various forms of treatment for depression.
- Insights were shared on the chemistry of depression and how treatment works, including the role of neurochemistry.

Engagement and Interaction:

- The Q&A session was particularly valued, allowing attendees to engage actively and share their thoughts.
- Attendees appreciated the opportunity to discuss diet and its relationship to depression, as well as the connection between age and depression.



Presentation Quality:

• Attendees enjoyed the presentation slides and found the talk to be informative and engaging.

Did the scientific information provided relate to your own personal experiences with mental health and mental health services?

The 75% of stated that the scientific information provided was relevant to their personal experiences with mental health and mental health services. Some comments noted the information was very interesting. Whilst 25% felt that the scientific information did not relate to their personal experiences.

What other healthcare topics would you like to hear about at future sessions?

Diabetes

- General information on diabetes.
- Specific discussions about its relationship with learning.

Alzheimer's Disease

• Managing relationships with family members who have Alzheimer's.

Mental Health

- Various mental health disorders.
- Sleep and motivation as they relate to mental health.

Sleep

- Importance of sleep and its effects on health.
- Repeated interest in sleep-related topics.

Holistic Treatment

• Approaches to treatment that consider the whole person.

Lung Function

• Information related to lung health.

Learning Difficulties

• Strategies and support for learning difficulties.



Do you feel comfortable discussing mental health?

94 % of attendees said yes, whilst 6% said no.

Do you have depression?

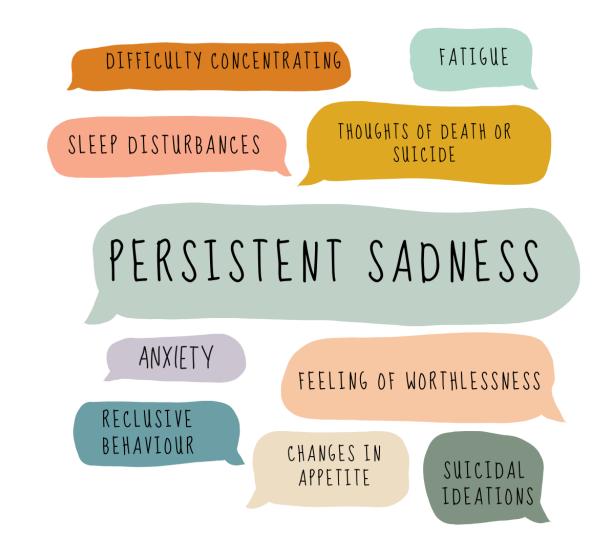
82% of attendees said yes, and 18% said no.

How long have you experienced depression?

The 88% of responses stated they had experienced depression levels for 10+ years, whilst 12% stated 1-3 years.

What symptoms of depression do you experience?

Below is a word cloud showing the phrases used.



Do you receive treatment? (e.g. SSRIs, therapy)

The 60% of respondents stated "No," they did not receive any form of treatments for their depression. 40% stated "Yes," with some specifying treatments such as therapy and medications (SSRI's/SNRI's).





How does the treatment make you feel?

The 66% respondents reported feeling "Much better," while 34% saying they felt "Somewhat better."

Do you feel there are specific needs or challenges faced by you community in relation to depression that are not being addressed by current research?

Positive feedback on the EKTA organisation highlights its recognition as a valuable support resource for individuals in need. Many expressed gratitude for the ongoing research being conducted, reflecting an appreciation for advancements in understanding mental health. Concerns about loneliness were prominently noted, with attendees emphasising that it remains a significant issue affecting numerous individuals who suffer in silence. Additionally, the discussion around group therapy was raised as a beneficial approach, alongside calls for increased government funding and a reduced reliance on medication. However, some responses indicated uncertainty or a lack of definitive answers regarding these topics.





Appendix 3: Attendee demographics

Table 1: Demographic characteristics provided in feedback forms (N=28)

Characteristics	N (28)	
Mean age (in years)	66	
Age groups (in years)		
45-49	1	
50-54	2 3	
60-64	3	
65-69	3	
70-74	3	
75-79	2	
80+	1	
Not provided	5	
Gender		
Female	3	
Male	10	
Prefer not to say	10	
Ethnic group		
Indian	4	
British Indian	2	
Asian	6	
Hindu	1	
Not provided	5	
Postcode (first section		
only)		
HA1	2	
HA3	4	
HA5	2	
HA7	2	
WD23	1	
Not provided	5	



Appendix 4: Photos

These are photos taken at the Depression Community Session, on the 16th of July 2024 2024









