



MINDS NEWSLETTER

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Monthly Newsletter on Psychiatry for Doctors and Medical Students

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From The Desk of Editor.....

"Disability"

Disability is an important public health concern in India. December 3rd is the world disability day. Disability is defined as "any restriction or lack of ability to perform an activity in a manner or within the range considered normal of human beings resulting from impairment. Disability includes Locomotor functioning, Hearing, Speech, Visual and Mental disability. 1.9 percent of Indian population is disabled. Nearly 31 percent of total disability is accounted by psychiartric disorders.

Psychiatric disorders which can lead to disability are severe Depression, Dementia, Schizophrenia, Bipolar mood disorder, OCD {Obsessive Compulsive Disorder} and Mental retardation.

Disability is directly proportional to severity of disease. Psychiatry disorder display different pattern of disability compared to physical disease. Patient with psychiatry diseases can have significant social, interpersonal and occupation issue due to symptom like apathy, amotivation, poor self care, poor communication skills and other cognitive problems which are not visible like blindness and locomotor disability.

Disability calculated on the basis of DALY {Disability Adjusted Life Year}. One DALY is one lost year of healthy life. Disability causes significant economic burden on the country. Disability in psychiatric diseases causes significant distress on patients and significant burden on family members and care takers.

Government is providing various facilities and reservation to these patients with disability to prevent discrimination, preserve self esteem and protect their rights. RPWD {Rights of Persons With Disability} act 2016 is revised version of pervious act which is derived from UNCRPD (United Nations Consortium for Rights of Persons With Disability) to protect human rights of these patients under legal framework. Rehabilitation committee formed by Indian psychiatry society has formed a scale to assess disability in Indian settings called as IDEAS {Indian Disability Evaluation and Assessment scale} for psychiatric disorders. Patient with more than 40 percent disability are given monthly disability pension from government.

More number of people with disability is residing in villages where the facilities provided by government are yet to reach. There is a need to work hard towards implementing the RPWD act effectively and provide all government facilities to unreached population. Each and every doctor and health care worker should work hard to meet this goal.

Dr. Sunil Kumar G Patil

My journey from MBBS days to what I am now has been an excellent motivating journey for myself which I wish to share with you

Bereaved with the untimely loss of my father while in final MBBS financial compulsions forced me to take up a job after MBBS. Having a brother in Air Force I was motivated to join armed forces for which I was selected in 1984. I was happy that I was posted in the border areas of Rajasthan as it made me mentally & physically tough both due to army training & the terrain. Army taught me to take all adversities in my stride & deal with them confidently. Self discipline & concern for defence personal who were guarding our frontiers became a part & parcel of my life.

Having got selected for MD in Psychiatry at AFMC Pune was a mix of learning about general psychiatry & combat psychiatry. My last tenure at Srinagar base hospital was the most gratifying. I worked in the proxy war stricken J&K. My work involved caring the armed forces jawans who were psychologically devastated. I also understood the mind of the militant having interviewed over 500 militants. I was one of the contributors of the book 'KASHMIR DIARY' which was about psychology of militancy & militants. This book is now a standard book for Indian Army officers for understanding militancy in Kashmir. The outcome of this book has had a lasting impact on the jawans there in terms of improved working conditions & better pay scale. I hold my head in pride that I could do this to my jawans roughing it out in most inhumane conditions.

Having seen armed forces & now being in civil life since 1996 I look back with pride & satisfaction that I was able to be part of the two noblest professions --being a doctor & an army man.

Career in armed forces is both challenging & satisfying one. Serving the nation is a matter of great pride & Doctors can serve country by joining armed and there is a scope for post graduation in armed forces medical college. I urge my eligible youngsters to embark on a career in armed forces. It would be life worth lived.

Dr. Abhay Matkar, President, Indian Psychiatric Society, Karnataka Chapter

REFRAME – Let Awareness Reframe Assumptions: Myths and Facts about Disability

- ☒ Disabilities are always physical and visible
 - ✓ Disabilities are of many types like psychiatric illness and many are invisible
- ☒ Individuals with learning disability are not intelligent
 - ✓ Majority have average or above average intelligence
- ☒ Wheelchairs are only for paraplegics
 - ✓ Mobility aids are used for wide range of conditions from fatigue to paraplegia
- ☒ Employing a person with disability can be costly for the employer
 - ✓ Not really, majority do not require costly aids
- ☒ A successful differently-abled person is considered to be a superhuman and they want to be
 - ✓ A disabled person just want to be treated like a normal individual

Dr. Priyanka Mantagi, Intern. MVJMC & RH, Hoskote, Bengaluru

GENETICS IN PSYCHIATRY

The foundation to human genetic studies was laid back in 1860s by the laws of inheritance proposed by Gregor Mendel. Psychiatric disorders are considered genetically complex with many genes being involved, probably acting in an additive manner. Several studies indicate that environmental factors modulate the genetic vulnerability toward the development of a mental illness. The high rate of findings not being replicated in other studies is attributable to factors such as sample size, differences in genomic structure, environmental exposures, and different diagnostic criteria used around the world.

Genetic Study Designs in Psychiatry:

1. **Epidemiological Studies:**

A. Family Studies:

These studies look for a familial aggregation of the disorder, which means that the illness should occur at a higher rate in family members of affected people than the control population, this can be either due to shared genes or shared environment.

B. Twin Studies:

Twins can be either Monozygotic (MZ) share 100% of genes, Dizygotic (DZ) share around 50% of genes. If a disorder is only due to genes then concordance rates will be higher in MZ and will be 100%

C. Adoption Studies:

These clarify nature Vs nurture debate of an illness. These are either those who share the same genes, but different environment or those who share the same environment but different genes

2. **Molecular Genetic Studies:**

A position on a chromosome is termed a *locus* refers to a gene or segment of DNA with no known function. DNA sequences that differ at the same locus are termed *allelic variants*. Polymorphism in the human genome permits gene mapping, and disease gene identification.

A. Linkage Studies: These studies try to establish a link between the DNA polymorphic markers and their heritability among the affected members in the family. Linkage studies assume that these markers are closest to the disease loci. Examples of these markers are: Restriction fragment length polymorphisms (RFLP), short tandem repeat markers, microsatellites DNA sequences and more recently single nucleotide polymorphisms (SNPs).

B. Association Studies: These are more commonly used in psychiatric disorders; they are of two types, case-control design - where the allele frequencies are compared between a group of unrelated affected individuals and a matched control sample. Family based design - mother, father and an affected offspring trio are studied. Association studies focus on testing one or a few markers in candidate genes chosen on the basis of their hypothesized function in relation to a given disease.

Epigenetics:

This refers to the changes in the genetic material like methylation of DNA and modifications of chromatin, such as methylation and acetylation of the histones, the DNA's packaging material which lead to phenotypic changes without altering the DNA sequences. They are acquired during the life of the person. In complex disorders like psychiatric disorders understanding the interplay between epigenetics and genetics is very important.

What does the future behold?

The understanding that we have from the work so far is that, it is not rare mutations in one or more genes but multiple susceptibility alleles that lead to common variants which are responsible for psychiatric disorders, and this is the reason why there are high rates co-morbidity and diagnostic uncertainties. This understanding has paved way to new approaches to the design, analysis and interpretation of psychiatric genetic studies. Some of these are the study of candidate genes and study of endo-phenotypes which are quantifiable phenotypes associated with psychiatric illness.

PSYCHIATRIC ASPECT OF ORTHOPAEDICS

A high index of suspicion for the presence of psychiatric disorders is important in treating the orthopedic patient with multiple trauma, chronic disease, factitious disorder or suspected malingering or who fails to improve with recognized treatment. Recognition of a psychiatric problem should be part of preoperative planning in orthopedic practice, and a formal psychiatric referral for diagnosis and treatment should be made for patient with significant psychiatric involvement. When associated psychiatric disease is diagnosed and controlled before orthopedic treatment commences, patient is more likely to comply with treatment regimen, which may lead to better results. There are special circumstances where in consent from significant others taken while treating like persons with Intellectual Developmental Delay (IDD), severe mental illness and there are conditions where delirium will be precipitated by orthopedic procedures like hyponatremia among others.

There exist limit data regarding the frequency of psychiatric illness in patients who sustain orthopedic polytrauma. Depression and anxiety disorder appears to be very common in orthopedic patients; both social circumstances and nature of bone pathology are associated with such conditions. Patients with co morbid psychiatric illness who are admitted to hospitals are at increased risk of inpatient adverse events and post hospitalization care leading to longer hospital stays, higher risk of suboptimal outcomes and increased resource utilization and a common cause of disability.

Psychiatric co morbidity with concurrent antipsychotic and antidepressant use are known risk factors for extremity fractures, postulated to be a result of decreased bone mineral density.

Orthopedic surgeon play pivotal role in changing the care of orthopedic patients from a biomedical to a biopsychosocial pattern. There is need to identify surgeons attitude and practice of identifying, screening and referral of patients with psychological illness to address psychosocial issues. Additionally identification of potential barriers to and reason for referral to psychosocial treatment needs to be done.

Steps of analysis	Barriers	Psychological illness
1. Notice	1. Lack of time	1. Drug use
2. Screen	2. Unsure what to do	2. Depression
3. Discuss	3. Stigma	3. Anxiety
4. Refer	4. Uncomfortable to discuss	4. Stress
	5. Don't want to upset patient	5. Heightened illness concern
	6. Problem not important	6. Social support
	7. No need	
	8. Not my job	
	9. Don't want to hurt my reputation	

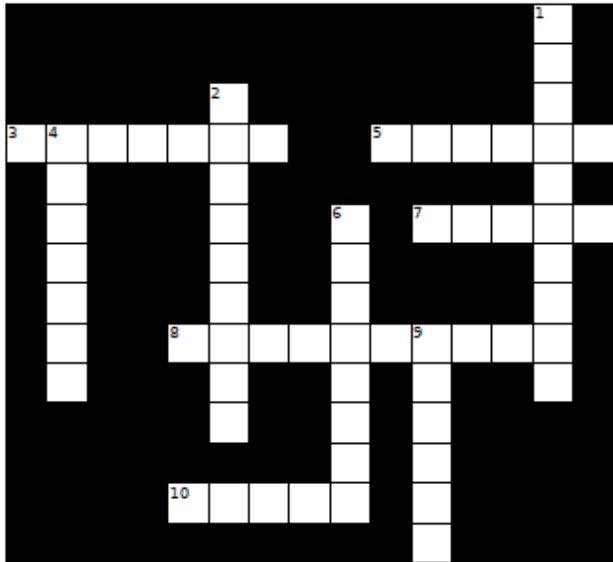
UG n PG

**AN EXCLUSIVE SECTION FOR
UNDERGRADUATES AND
POSTGRADUATES**

UG n PG

MINDS QUIZ

- Any loss or abnormality of psychological, physiological or anatomical structure or function is known as:
 - Handicap
 - Disability
 - Impairment
 - Restriction
- Disabilities included under Rights of Persons With Disability (RPWD) 2016 are all except
 - Intellectual disability
 - Dwarfism
 - Acid attack victims
 - Rape victims
- As per Rights of Persons With Disability (RPWD) 2016, number of disabilities covered are
 - 7
 - 14
 - 21
 - 28
- IDEAS (Indian Disability and Evaluation Scale) does not include which of the following
 - Self care
 - Interpersonal activities
 - Communications
 - Family burden
- Which of the following is not an Indian law related to disability
 - Indian day care act,1957
 - Mental health act,1987
 - Persons with disability act,1995
 - Rehabilitation council of India,1992



ACROSS

- clinical triad implicating multiple sclerosis(7)
- Sign commonly associated with duchenne muscular dystrophy- ____ sign(6)
- Syndrome associated with cortical blindness(5)
- ____ syndrome results from a PICA stroke(10)
- Wedge calcaneal osteotomy used in CTEV rehabilitation (5)

DOWN

- The act of acid throwing is also known as ____ (10)
- A type of forearm crutch(9)
- Traumatic spondylolisthesis of C2 is also known as ____ fracture(7)
- ____ syndrome-Developmental disorder (part of ASD), associated with difficulty in social and non verbal communication (8)
- Visual hallucinations seen in total blindness -charles ____ syndrome(6)

**Can
You
CROSS
THE
CROSS
WORD**

Dr. Namrata Srinivasan, Intern, MVJMC & RH, Hoskote, Bengaluru



QR Code for MINDS website

- DOWN**
- Vitriolage
 - Lofstrand
 - Hangman
 - Asperger
 - Bonnet

- ACROSS**
- Charcot
 - Gowers
 - Anton
 - Wallenberg
 - Dwyer

CROSS WORDS

**Dr. Gaurav
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RH**

- MINDS QUIZ**
- Impairment
 - Rape victims
 - 21
 - Family burden
 - Indian Day Care act,1957

ANSWERS

MINDS Newsletter was launched in July 2011 as a Monthly Newsletter on Psychiatry for doctors & medical students for creating awareness and continued medical education. You can receive a free e-copy of MINDS by an e-mail request to editormind@gmail.com, or by just SMS MINDS to Editor: +91 9845219324/ Asst. Editor: , Join us at www.facebook.com/minds.newsletter. All archives are available in our exclusive website www.mindsnewsletter.com Enjoy a new way of learning!!!!

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