



Monthly Newsletter on Psychiatry for Doctors & Medical Students
Volume 10 Issue 13 July 2020

EDITORIAL

Tell me about despair, yours, and I will tell you mine.

Meanwhile the world goes on.

*Meanwhile the sun and the clear pebbles of the rain are moving across the
landscapes,*

over the prairies and the deep trees, the mountains and the rivers

Wild Geese, Mary Oliver

As a new team takes over the reins of the MINDS newsletter for the upcoming year, the realism of the science of psychiatry remains much the same. The sincere endeavor of our predecessors has always been towards highlighting perspectives of experts in the field while being conscious of the impressionable young minds of its readers.

I'm reminded of writers and poets who often deliberate on re-imagining things and attributing wonderment. *A refill in ballpoint pen can also be reimagined for the capillary action of the ink in its body which is expelled through a small metal sphere of brass, steel or tungsten carbide rather than looking at all of it as-a-matter-of-fact.* Therein lies the motivation to understand the *whys, hows, whats* of science. So, let us lend ourselves to the wonderment that psychiatry has to offer and rediscover ideas, intermingling of sciences, and the human side of retelling Psychiatry.

(Cont'd on Page 2)

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- Contribution from More than 50 Authors!!
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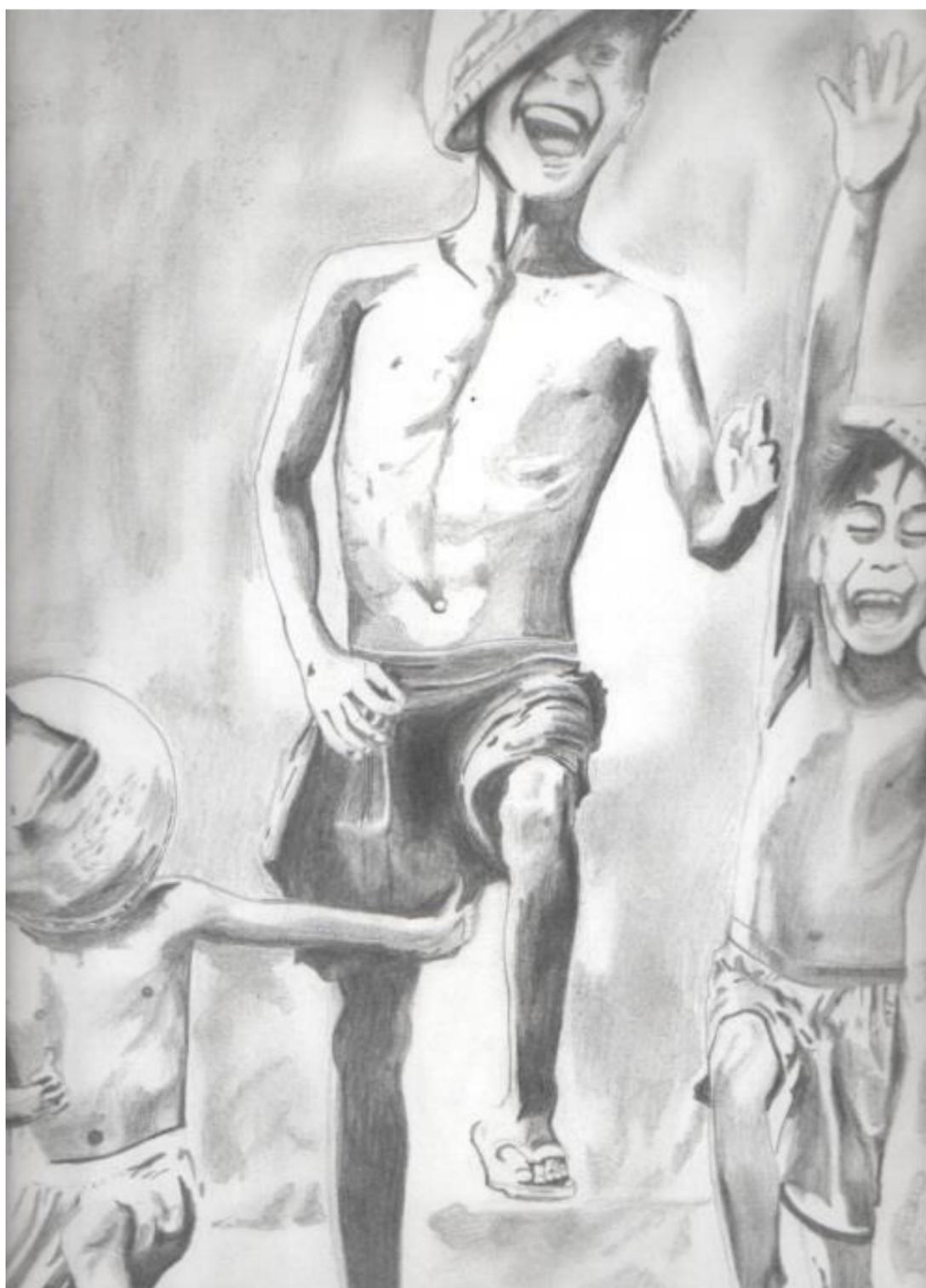
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AN INITIATIVE SUPPORTED BY THE MINDS UNITED FOR HEALTH SCIENCES AND HUMANITY TRUST



What distressing contrast there is between the radiant intelligence of the child and the feeble mentality of the average adult.

(Sigmund Freud - 1856-1939,
Neurologist and
Pioneer of Psycho-Analysis)

Sketch – Dr. Yamini. D

Quote – Courtesy Dr. C. Shamasundar

Taking mental health to prison:

It is well established that prison population has high prevalence of mental health problems including substance use disorders. The prevalence of mental health problems is as high as three to five times as compared to general population.

My experience in prison as prison psychiatrist:

I vividly remember the day I attended prison duty. It was a day before Independence Day; I walked across the jail corridor with growing sense of uneasiness with each passing prisoner cell. The length of the corridor appeared to be unusually long for a solo psychiatrist in an unfamiliar environment with police personnel and prisoners all around. I reached my hospital chamber with a sense of accomplishment and sat on my chair with sigh of relief. Gradually I got accustomed to the environment and was able to figure out the strategies to deal with mental health issues in prisoners in the jail. Over the period, I become aware of certain challenges in delivering mental health care among prisoners in the jail.

Prisoners often have a deep psychological impact related to crime and sentence of punishment given to them which require to be addressed skillfully by various psychotherapeutic measures. Mental illness frequently associated with substance use like alcohol, cannabis and tobacco are further complicated by presence of poor drug compliance and poor social support. The apathetic attitude of jail staff towards mental illnesses of prisoners' also pose challenges. Prisoners' mental illness can be exacerbated by various triggers like rejection of bail request, sudden conviction, loss or torture of cell inmate, violence and exploitations. Moreover, malingering is often posed challenge in management.

I strongly felt need to sensitize jail staff about various mental health issues in prisoners like violence, substance use and suicide and to deal with them with compassion. My journey as a sole psychiatrist in Bangalore Central Prison with around 5000 inmates at a time and more than 25000 inmates in a year was full of new experiences each day in my tenure of six years. It is difficult to say what difference I made, but I shared my experience and proposed recommendations to improve mental health among prisoners across the nation. In one of my observation in collaboration with National Institute of Mental Health and Neurosciences (NIMHANS), Bangalore I found the prevalence of mental illness and substance use disorders as high as 79.6%.

Later, I was transferred to District Hospital, Ramanagar, where I got an opportunity start outpatient department in psychiatry on daily basis. Earlier, this was managed by monthly camps by NIMHANS, Bangalore. Soon OPD started functioning and started catering large numbers of patients, with the help of various community awareness programs at a taluk level. After five year of my service, I joined as Deputy Director Mental Health which came to me as surprise. I accustomed myself to an administrative environment and geared up to involve myself in National Health Mission activities. At the time that I joined, the historic District Mental Health Program (DMHP) was active only in four districts of Karnataka without any psychiatrist. Consistent efforts saw DMHP being implemented in 30 districts of the state with more than 200 staff. I was fortunate to have good support of my seniors, colleagues and family.

To the young doctors out there, I'd like to say that life as a psychiatrist has been riddle some, engaging, unpredictable, but importantly gratifying. Most of it, serendipitously.



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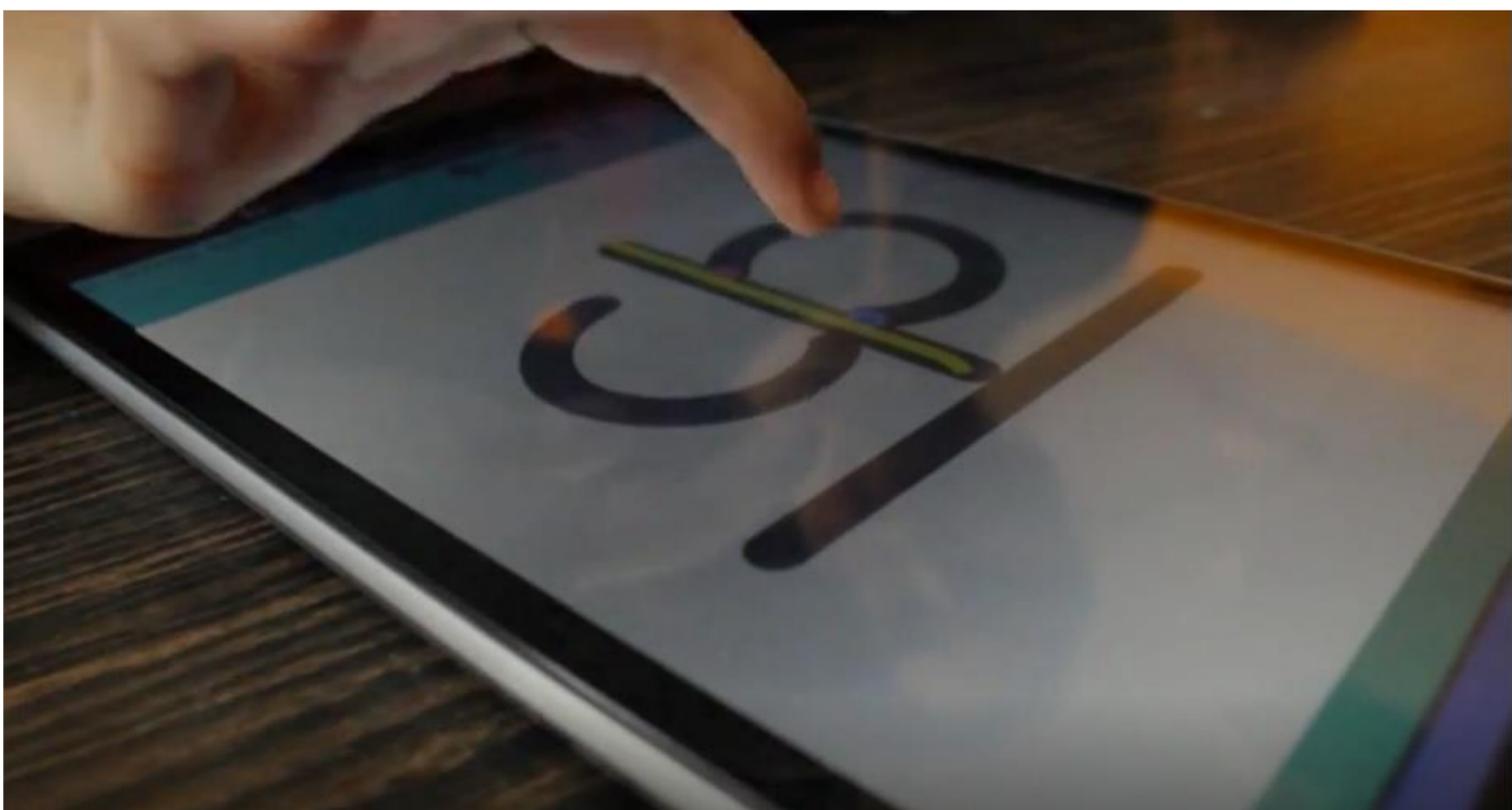
Assistive Application for Children with Dyslexia and Dysgraphia (AACDD)

Assistive Application for Children with Dyslexia and Dysgraphia (AACDD) was developed by a team comprising of Dr. Braj Bhushan, Professor of Psychology, IIT Kanpur, Dr. Alok Bajpai, Consultant Psychiatrist, and Dr. Shatarupa Thakurta Roy, Assistant Professor of fine arts, IIT Kanpur. Psychologists Ms. Pratibha Mishra and Ms. Manisha Agnihotri assisted the team. It was a DIC funded project by the Ministry of Human Resource and Development, Government of India.

The central idea governing the development of AACDD was to address the need of 15% of the school-going children who suffer from dyslexia (reading disability) and dysgraphia (writing disability).

At the **development stage**, language teachers identified supposedly academically poor students in Hindi and English compared to others in their class. Thereafter, the nature of perceived academic difficulty and scholastic records were examined. Dyslexia screening test- Junior (DST-J, Fawcett & Nicolson) was also administered to screen them for dyslexia. The verbal comprehension and perceptual reasoning domains of these children were assessed using Wechsler Intelligence Scale for Children (WISC-IV, Wechsler, 2003). Handwriting samples from the Hindi notebooks of these children to look for frequently appearing words. The identification of specific pattern of these words helped identify geometrically resembling Hindi letters. These frequently appearing words, along with other words, were then arranged in the increasing order of difficulty level such as without *matras*, with single *matra* in a word, with multiple *matras* in a word, and so on.

The available version of AACDD is in Hindi. It is a touchscreen-based interface designed and tested for school going children between classes 1 to 5 with dyslexia and dysgraphia. It involves visual and auditory feedbacks putting haptic sensation and motor movement in loop to facilitate acquisition and reproduction of Hindi letters. It integrates the audio, visual, and haptic inputs in order to retrain the brain networks through manipulation of basic geometric pattern of words-like lines, circles, etc.



LEVEL-I TRACING TASK

INVITED ARTICLE

In one of our earlier studies (Meena et al., 2018) on eye movement of a child with dyslexia, we had experimentally examined text entry rate, information transfer rate, and type of error using the virtual keyboard interface with multi-modal feedback (auditory and audio-visual feedback).

These specifics have been translated into the application. The application has three levels— tracing task, jigsaw puzzle, and writing words. It can be used to improve the reading-writing skills of Hindi speaking children suffering from dyslexia and dysgraphia. The time and error scores of the child is stored at all the three stages. Although not visible on the screen, the administrator (parent, teacher, trainer, special educator, or guardian) can look at the scores of levels 1 and 2 for each word, respectively. Looked in a time-series fashion, these scores show the trajectory of improvement of the children suffering from specific learning disability, especially dyslexia and dysgraphia.

AACDD aims to assist children with dyslexia and dysgraphia in self-training mode as well as under supervision. In the absence of a remedial teacher, parents should be able to use this for training. It enables them to note on screen assisted commands through auditory feedback and trace fonts to learn formation of words through haptic feedback. Integrating auditory inputs with visual manipulation should help the child retrain their brain networks in identifying the geometric patterns of the words.



Prof. Braj Bhushan, Shri Deva Raj Chair
Professor of Psychology & Head of Department of Humanities & Social Sciences
Indian Institute of Technology, Kanpur

ANSWERS TO THE CROSSWORD APPEARING ON PAGE 8

ACROSS

3. Caffeine
7. Anniversary
8. Buspirone
9. Agoraphobia
11. kublerrross

DOWN

1. benzodiazepines
2. hansselye
4. Mourning
5. JPMR
6. Prazosin
10. GurmeetSingh

TRANSCULTURAL PSYCHIATRY

“OUCH!” ANIMALS HAVE FEELINGS TOO!



The Nobel laureate Konrad Lorenz commented on grief in geese being very similar to grief in young children. “A greylag goose that has lost its partner shows all the symptoms that John Bowlby has described in young human children in his famous book *Infant Grief*..the eyes sink deep into their sockets, and the individual has an overall drooping experience, literally letting the head hang...”

Emotions can be broadly defined as ‘complex reaction patterns, involving experiential, behavioral, and physiological elements, by which an individual attempts to deal with a personally significant matter or event (American Psychological Association)’. The part of the brain that is responsible for primary emotions - the Limbic system/Amygdala, is very similar between humans and dogs and possibly with most other animals. Thus, it is highly likely that animals experience emotions the same way we do.

Wolves wag their tails loosely and elephants have a greeting celebration, flapping their ears and spinning about and emitting a vocalization known as a “greeting rumble” when they reunite. Iguanas experience “emotional fever” most closely related to physiological response of happiness in humans such as an increase in body temperature and tachycardia.

Charles Darwin, who was the first scientist to study animal emotions, described differences among many animals in degree of expression rather than in kind. Humans have a more developed cortex and so thus emotional regulation. Secondary emotions, as experienced by humans, involve higher brain centers in the cerebral cortex. In the triune brain theory of MacLean, he suggested a concept of three-brain in one. This included the reptilian or primitive brain (fish, amphibians, reptiles, birds, and mammals), the limbic or paleomammalian brain (mammals), and the neocortical or “rational” neomammalian brain (mammals, such as primates). Each has its own capacities.

Several behavioural similarities between dogs and humans stem from similar patterns of emotions:

1. Fussy eaters until competition comes along, in the form of a friend or a sibling.
2. Dominance (bullies found in both children and dogs).
3. Possessive behavior over possessions (food/toys/treats).
4. Herd mentality / Pack mentality (Adoption of behaviors influenced by peers)
5. A pack leader is a must (for Humans - Politician or a Spiritual leader).
6. Dogs and children do not usually howl/cry for no reason.

TRANSCULTURAL PSYCHIATRY

“OUCH!” ANIMALS HAVE FEELINGS TOO!



7. Strangers are not welcome (dogs bark, toddlers cry).
8. Separation anxiety in the young and protective aggression in parents.
9. Adolescence in both humans and dogs leads to sexual arousal, interestingly even homosexual tendencies in a few.

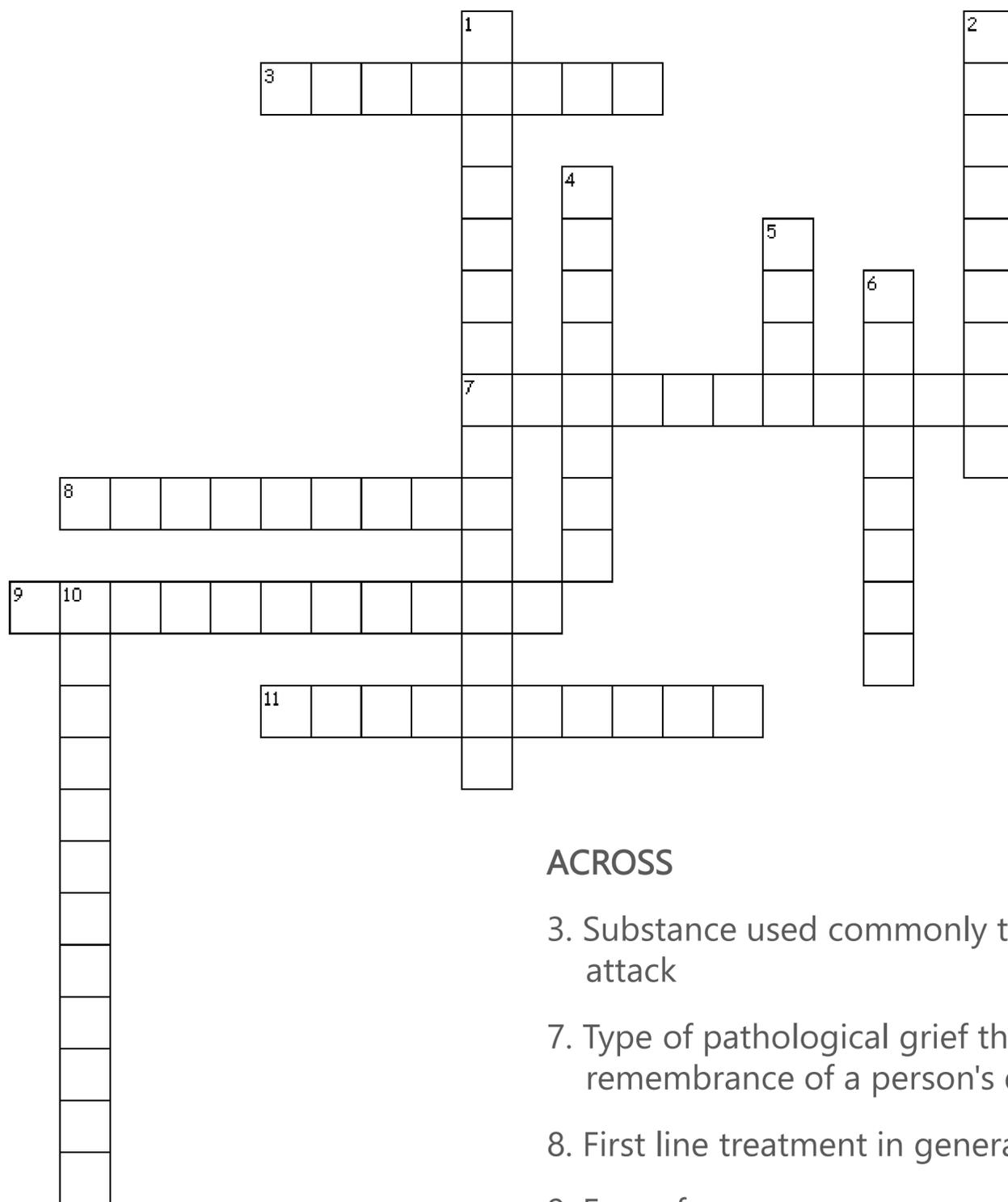
The IQ of a dog is estimated to be equivalent to that of a 2.5-year-old child and a pig's IQ is of a 3-year-old child (as determined by assessing their understanding of commands and problem-solving ability). Pet dogs understand a lot of the language spoken in the house, whereas humans cannot understand a single bark; only the variations in tone are appreciated. I have been a pet parent to dogs. My dog saved me from being bitten by a Cobra when he was just a puppy. My dogs in the past have warned me about snakes in Africa. How have they always known when I am sad or not well? This possibly hints at the emotional intelligence of animals.

Due to the fundamentally similar (anatomically and physiologically) emotional make-up, animals and humans interact via complex mechanisms of verbal and more importantly non-verbal communication (including gestures, body language, and various other auditory, tactile and kinesthetic cues, much like those between a mother and her newborn child). Thus, human-animal interactions have a significant impact on the psycho-social development and emotional well-being of a child. Also, Pet Therapy has been found to be beneficial as adjunctive therapy for a variety of disorders.



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THE UNDERGRADUATE SECTION



SOLVE THE CROSSWORD

CREATED BY

Ramaswamy Sundararajan

INTERN, JSS MEDICAL COLLEGE, MYSORE

ANSWERS TO THE CROSSWORD
ARE ON PAGE 5

ACROSS

3. Substance used commonly that can cause a panic attack
7. Type of pathological grief that happens yearly at the remembrance of a person's death
8. First line treatment in generalized anxiety disorder
9. Fear of open spaces
11. Stages of grief were described by this person

DOWN

1. 2nd line treatment for panic attacks
2. Described general adaptation syndrome
4. Social expression to show grief
5. Type of relaxation technique used in the treatment of anxiety
6. Used in PTSD to decrease nightmares
10. Presumptive stressful life events scale (PSLES) was coined by this Indian

Your suggestions are important to us, kindly send them to: editormind@gmail.com

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