

# **Syllabus for Clinical Psychology and Child Psychology**

Part – I

## **PAPER – I: Psychosocial Foundations of Behavior And Psychopathology**

Syllabus:

Part – A (Psychosocial Foundations of Behavior)

Unit - I: Introduction: Overview of the profession and practice; history and growth; professional role and functions; current issues and trends; areas of specialization; ethical and legal issues; code of conduct.

Unit - II: Mental health and illness: Mental health care – past and present; stigma and attitude towards mental illness; concept of mental health and illness; perspectives – psychodynamic, behavioral, cognitive, humanistic, existential and biological models of mental health/illness;

Unit - III: Epidemiology: Studies in Indian context; tools available/standardized for epidemiological surveys; socio-cultural correlates of mental illness; religion and mental health; psychological well-being and quality of life – measures and factors influencing.

Unit - IV: Self and relationships: Self-concept, self-image, self-perception and self-regulations in mental health and illness; learned helplessness and attribution theories; social skill model; interpersonal and communication models of mental illness; stress diathesis model, resilience, coping and social support.

Unit - V: Family influences: Early deprivation and trauma; neglect and abuse; attachment; separation; inadequate parenting styles; marital discord and divorce; maladaptive peer relationships; communication style; family burden; emotional adaptation; expressed emotions and relapse.

Unit - VI: Societal influences: Discrimination in race, gender and ethnicity; social class and structure, poverty and unemployment; prejudice, social change and

uncertainty; crime and delinquency; social tension & violence; urban stressors; torture & terrorism; culture shock; migration; religion & gender related issues with reference to India.

Unit - VII: Disability: Definition and classification of disability; psychosocial models of disability; impact, needs and problems; issues related to assessment/certification of disability – areas and measures.

Unit - VIII: Rehabilitation: Approaches to rehabilitation; interventions in the rehabilitation processes; models of adaptation to disability; family and caregivers issues; rights of mentally ill; empowerment issues; support to recovery.

Unit - IX: Policies and Acts: Rehabilitation Policies and Acts; assistance, concessions, social benefits and support from government and voluntary organizations; contemporary challenges; rehabilitation ethics and professional code of conduct.

#### Part – B (Psychopathology)

Unit - X: Introduction to psychopathology: Definition; concepts of normality and abnormality; clinical criteria of abnormality; continuity (dimensional) versus discontinuity (categorical), and prototype models of psychopathology; classification and taxonomies – reliability and utility; classificatory systems, currently in use and their advantages and limitations.

Unit - XI: Signs and symptoms: Disorders of consciousness, attention, motor behavior, orientation, experience of self, speech, thought, perception, emotion, and memory.

Unit - XII: Psychological theories: Psychodynamic; behavioral; cognitive; humanistic; interpersonal; psychosocial; and other prominent theories/models of principal clinical disorders and problems, viz. anxiety, obsessive-compulsive, somatoform, dissociative, adjustment, sexual, substance use, personality, suicide,

childhood and adolescence, psychotic, mood disorders, and culture-specific disorders.

Unit - XIII: Indian thoughts: Concept of mental health and illness; nosology and taxonomy of mental illness; social identity and stratification (Varnashrama Vyawastha); concept of – cognition, emotion, personality, motivation and their disorders.

PAPER – II: Biological Foundations of Behavior

Syllabus:

Part – A (Anatomy, Physiology and Biochemistry of CNS)

Unit – I: Anatomy of the brain: Major anatomical sub-divisions of the human brain; the surface anatomy and interior structures of cortical and sub-cortical regions; anatomical connectivity among the various regions; blood supply to brain and the CSF system; cytoarchitecture and modular organization in the brain.

Unit – II: Structure and functions of cells: Cells of the nervous system (neurons, supporting cells, blood-brain barrier); communication within a neuron (membrane potential, action potential); communication between neurons (neurotransmitters, neuromodulators and hormones).

Unit – III: Biochemistry of the brain: Biochemical and metabolic aspects of Brain; medical genetics; structure and function of chromosomes; molecular methods in genetics; genetic variation; population genetics; single-gene inheritance; cytogenetic abnormalities; multifactorial inheritance; biochemistry of genetic diseases.

Unit – IV: Neurobiology of sensory and motor systems: Organization of sensory system in terms of receptors, relay neurons, thalamus and cortical processing of different sensations; principle motor mechanisms of the periphery (muscle spindle), thalamus, basal ganglia, brain stem, cerebellum and cerebral cortex.

Unit – V: Regulation of internal environment: Role of limbic, autonomic and the neuroendocrine system in regulating the internal environment; reticular formation and other important neural substrates regulating the state of sleep/wakefulness.

Unit– VI: Neurobiology of behavior: Neurobiological aspects of drives, motivation, hunger, thirst, sex, emotions, learning and memory;

Unit–VII: Psychopharmacology: Principles of psychopharmacology (pharmacokinetics, drug effectiveness, effect of repeated administration); sites of drug action (effects on production, storage, release, receptors, reuptake and destruction); neurotransmitters and neuromodulators (acetylcholine, monoamines, amino acids, peptides, lipids).

Part – B (Neuropsychology)

Unit - VIII: Introduction: Relationship between structure and function of the brain; the rise of neuropsychology as a distinct discipline, logic of cerebral organization; localization and lateralization of functions; approaches and methodologies of clinical and cognitive neuropsychologists.

Unit- IX: Frontal lobe syndrome: Disturbances of regulatory functions; attentional processes; emotions; memory and intellectual activity; language and motor functions.

Unit-X: Temporal lobe syndrome: Special senses – hearing, vestibular functions and integrative functions; disturbances in learning and memory functions; language, emotions, time perception and consciousness.

Unit – XI: Parietal and occipital lobe syndromes: Disturbances in sensory functions and body schema perception; agnosias and apraxias; disturbances in visual space perception; color perception; writing and reading ability.

Unit – XII: Neuropsychological profile of various neurological and psychiatric conditions: Huntington's disease, Parkinson's disease, progressive supranuclear

palsy, thalamic degenerative disease, multiple sclerosis, cortical and subcortical dementias, Alzheimer's dementia, AIDS dementia complex etc., and principal psychiatric syndromes such as psychosis, mood disorders, suicide, anxiety disorders, and other emotional and behavioral syndromes.

Unit – XIII: Functional human brain mapping: QEEG, EP & ERP, PET, SPECT, fMRI

Unit – XIV: Neuropsychological assessment: Introduction, principles, relevance, scope and indications for neuropsychological assessment and issues involved in neuropsychological assessment of children.

Unit – XV: Neuropsychological rehabilitation: Principles, objectives and methods of neuro-rehabilitation of traumatic brain injury and brain diseased; scope of computer-based retraining, neurofeedback, cognitive aids etc.

PAPER – III: Psychiatry

Syllabus:

Unit - I: Introduction: Approach to clinical interviewing and diagnosis; case history; mental status examination; organization and presentation of psychiatric information; diagnostic formulation; classificatory system in use.

Unit - II: Psychoses: Schizophrenia, affective disorders, delusional disorders and other forms of psychotic disorders – types, clinical features, etiology and management.

Unit - III: Neurotic, stress-related and somatoform disorders: types, clinical features, etiology and management.

Unit - IV: Disorders of personality and behavior: Specific personality disorders; mental & behavioral disorders due to psychoactive substance use; habit and impulse disorders; sexual disorders and dysfunctions – types, clinical features, etiology and management.

Unit - V: Organic mental disorders: Dementia, delirium and other related conditions with neuralgic and systemic disorders – types, clinical features, etiology and management.

Unit - VI: Behavioral, emotional and developmental disorders of childhood and adolescence: types, clinical features, etiology and management.

Unit - VII: Mental retardation: Classification, etiology and management.

Unit - VIII: Neurobiology of mental disorders: Neurobiological theories of psychosis, mood disorders, suicide, anxiety disorders, substance use disorders and other emotional and behavioral syndromes.

Unit - IX: Therapeutic approaches: Drugs, ECT, psychosurgery, psychotherapy, and behavior therapy, preventive and rehabilitative strategies – half-way home, sheltered workshop, daycare, and institutionalization.

Unit - X: Consultation-liaison psychiatry: Psychiatric consultation in general hospital; primary care setting.

Unit - XI: Special populations/Specialties: Geriatric, terminally ill, HIV/AIDS, suicidal, abused, violent and noncooperative patients; psychiatric services in community, and following disaster/calamity.

Unit - XII: Mental health policies and legislation: Mental Health Act of 1987, National Mental Health Program 1982, the Persons With Disabilities (equal opportunities, protection of rights and full participation) Act 1995; Rehabilitation Council of India (RCI) Act of 1993, National Trust for Mental Retardation, CP and Autistic Children 1999, Juvenile Justice Act of 1986; ethical and forensic issues in psychiatry practice.

Part - II

PAPER - I: Psychotherapy And Counseling

Syllabus:

Unit - I: Introduction to Psychotherapy: Definitions, objectives, issues related to training professional therapists; ethical and legal issues involved in therapy work; rights and responsibilities in psychotherapy; issues related to consent (assent in case of minors); planning and recording of therapy sessions; structuring and setting goals; pre- and post-assessment; practice of evidence-based therapies.

Unit - II: Therapeutic Relationship: Client and therapist characteristics; illness, technique and other factors influencing the relationship.

Unit - III: Interviewing: Objectives of interview, interviewing techniques, types of interview, characteristics of structured and unstructured interview, interviewing skills (micro skills), open-ended questions, clarification, reflection, facilitation and confrontation, silences in interviews, verbal and non-verbal components.

Unit - IV: Affective psychotherapies: Origin, basis, formulation, procedures, techniques, stages, process, outcome, indications, and research & current status with respect to psychodynamic, brief psychotherapy, humanistic, existential, gestalt, person-centered, Adlerian, transactional analysis, reality therapy, supportive, clinical hypnotherapy, play therapy, psychodrama, and oriental approaches such as yoga, meditation, shavasana, pranic healing, reiki, tai chi etc.

Unit – V: Behavior therapies: Origin, foundations, principles & methodologies, problems and criticisms, empirical status, behavioral assessment, formulations and treatment goals, Desensitization - (imaginal, in-vivo, enriched, assisted), Extinction - (graded exposure, flooding and response prevention, implosion, covert extinction, negative practice, stimulus satiation), Skill training - (assertiveness training, modeling, behavioral rehearsal), Operant procedures - (token economy, contingency management), Aversion - (faradic aversion therapy, covert sensitization, aversion relief procedure, anxiety relief procedure and avoidance conditioning), Self-control procedures - (thought stop, paradoxical intention,

stimulus satiation), Biofeedback – (EMG, GSR, EEG, Temp., EKG), Behavioral counseling, Group behavioral approaches, Behavioral family/marital therapies.

Unit - VI: Cognitive therapies: Cognitive model, principles and assumptions, techniques, indications and current status of rational emotive behavior therapy, cognitive behavior therapy, cognitive analytic therapy, dialectical behavior therapy, problem-solving therapy, mindfulness based cognitive therapy, schema focused therapy, cognitive restructuring, and other principal models of cognitive therapies.

Unit – VII: Systemic therapies: Origin, theoretical models, formulation, procedures, techniques, stages, process, outcome, indications, and research & current status with respect to family therapy, marital therapy, group therapy, sex therapy, interpersonal therapy and other prominent therapies.

Unit – VIII: Physiological therapies: Origin, basis, formulation, procedures, techniques, stages, process, outcome, indications, and current status with respect to progressive muscular relaxation, autogenic training, biofeedback, eye-movement desensitization and reprocessing, and other forms of evidence-based therapies.

Unit – IX: Counseling: Definition and goals, techniques, behavioral, cognitive and humanistic approaches, process, counseling theory and procedures to specific domains of counseling.

Unit - X: Therapy in special conditions: Therapies and techniques in the management of deliberate self harm, bereavement, traumatic, victims of man-made or natural disasters, in crisis, personality disorders, chronic mental illness, substance use, HIV/AIDS, learning disabilities, mental retardation, and such other conditions where integrative/eclectic approach is the basis of clinical intervention.

Unit - XI: Therapy with children: Introduction to different approaches, psychoanalytic therapies (Ana Freud, Melanie Klein, Donald Winnicott); special techniques (behavioral and play) for developmental internalizing and externalizing

disorders; therapy in special conditions such as psycho-physiological and chronic physical illness; parent and family counseling; therapy with adolescents.

Unit – XII: Psychoeducation (therapeutic education): Information and emotional support for family members and caregivers, models of therapeutic education, family counseling for a collaborative effort towards recovery, relapse-prevention and successful rehabilitation with regard to various debilitating mental disorders.

Unit – XIII: Psychosocial rehabilitation: Rehabilitation services, resources, medical and psychosocial aspects of disability, assessment, group therapy, supportive therapy and other forms of empirically supported psychotherapies for core and peripheral members.

Unit - XIV: Psychotherapy in the Indian Context: Historical perspective in psychological healing practices from the Vedic period and the systems of Ayurveda and Yoga, contemporary perspectives; socio-cultural issues in the Indian context in practice of psychotherapy; ongoing research related to process and outcome.

Unit - XV: Contemporary issues and research: Issues related evidence-based practice, managed care, and research related to process and outcome.

## PAPER - II: Behavioral Medicine

### Syllabus:

Unit – I: Introduction: Definition, boundary, psychological and behavioral influences on health and illness, neuroendocrine, neurotransmitter and neuroimmune responses to stress, negative affectivity, behavioral patterns, and coping styles, psychophysiological models of disease, theoretical models of health behavior, scope and application of psychological principles in health, illness and health care.

Unit – II: Central nervous system: Cognitive, personality, behavioral, emotional disturbances in major CNS diseases like cerebrovascular (stroke, vascular

dementia etc.), developmental (cerebral palsy), degenerative (Parkinson's etc.), trauma (traumatic brain and spinal cord injury), convulsive (epilepsy), and infectious (AIDS dementia), assessment and methods for psychological intervention and rehabilitation with such patients.

Unit – III: Cardiovascular system: Psychosocial, personality, lifestyle, and health practice issues, psychobehavioral responses including coping with illness and functional loss in hypertension, MI, following CABG and other cardiovascular conditions, salient issues with regard to quality-of-life and well-being, empirically proven methods of psychological management of CVS diseases.

Unit – IV: Respiratory system: precipitants, such as emotional arousal, and other external stimuli, exacerbants such as anxiety and panic symptoms, effects, such as secondary gain, low self-esteem in asthma and other airway diseases, psychological, behavioral and biofeedback strategies as adjunct in the management.

Unit – V: Gastrointestinal system: Evaluation of psychological factors including personality characteristics and stress/coping style in functional GI disorders such as irritable bowel syndrome, inflammatory bowel disease, peptic ulcer disease, esophageal disorder etc., role of psychotherapy, behavior modification, cognitive restructuring, biofeedback and relaxation training.

Unit – VI: Genitourinary/renal/reproductive system: Psychosocial issues in male/female sexual dysfunctions, micturition/voiding problems including primary/secondary enuresis, end-stage renal disease, dialysis treatment, primary and secondary infertility, empirically validated psychological and behavioral interventions in these conditions.

Unit – VII: Dermatology: Role of stress and anxiety in psychodermatological conditions such as psoriasis, chronic urticaria, dermatitis, alopecia and the impact

of these on self-esteem, body image and mood, role of psychological interventions such as relaxation, stress management, counseling and biofeedback strategies.

Unit – VIII: Oncology: Psychosocial issues associated with cancer - quality of life, denial, grief reaction to bodily changes, fear of treatment, side effects, abandonment, recurrence, resilience, assessment tools, and goals of interventions for individual and family, and therapy techniques.

Unit – IX: HIV/AIDS: Model of HIV disease service program in India, pre- and post-test counseling, psychosocial issues and their resolutions during HIV progress, psychological assessment and interventions in infected adults and children, and family members/caregivers, highly active anti-retroviral treatments (HAART), neuropsychological findings at different stages of infection, issues related to prevention/spreading awareness and interventions in at risk populations.

Unit – X: Pain: Physiological and psychological processes involved in pain experience and behavior, assessment tools for acute and chronic pain intensity, behavior, and dysfunctions/disability related to pain, psychological interventions such as cognitive, behavioral, biofeedback and hypnotic therapies.

Unit – XI: Terminally ill: Medical, religious and spiritual definition of death and dying, psychology of dying and bereaved family, strategies of breaking bad news, bereavement and grief counseling, management of pain and other physical symptoms associated with end-of-life distress in patients with cancer, AIDS, and other terminal illness, professional issues related to working in hospice including working through one's own death anxiety, euthanasia – types, arguments for and against.

Unit – XII: Other general clinical conditions: Application of psychological techniques and their rationale in the clinical care of patients in general medical settings where psychological services appears to affect the outcome of medical management positively, for example in diabetes, sleep disorders, obesity, dental

anxiety, burns injury, pre- and post-surgery, preparing for amputation, evaluation of organ donors/recipient, pre- and post-transplantation, organ replacement, hemophiliacs, sensory impairment, rheumatic diseases, abnormal illness behavior, health anxiety etc.

Unit – XIII: Contemporary Issues: Research and developments in health psychology, psychophysiology, psychoneuroimmunology, psychobiology, sociobiology and their implications, and effects of psychotherapy on the biology of brain.

PAPER - III: Statistics And Research Methodology

Syllabus:

Unit - I: Introduction: Various methods to ascertain knowledge, scientific method and its features; problems in measurement in behavioral sciences; levels of measurement of psychological variables - nominal, ordinal, interval and ratio scales; test construction - item analysis, concept and methods of establishing reliability, validity and norms.

Unit - II: Sampling: Probability and non-probability; various methods of sampling - simple random, stratified, systematic, cluster and multistage sampling; sampling and non-sampling errors and methods of minimizing these errors.

Unit - III: Concept of probability: Probability distribution - normal, poisson, binomial; descriptive statistics - central tendency, dispersion, skewness and kurtosis.

Unit - IV: Hypothesis testing: Formulation and types; null hypothesis, alternate hypothesis, type I and type II errors, level of significance, power of the test, p-value. Concept of standard error and confidence interval.

Unit - V: Tests of significance - Parametric tests: Requirements, "t" test, normal z-test, and "F" test including post-hoc tests, one-way and two-way analysis of

variance, analysis of covariance, repeated measures analysis of variance, simple linear correlation and regression.

Unit – VI: Tests of significance - Non-parametric tests: Requirements, one-sample tests – sign test, sign rank test, median test, Mc Nemer test; two-sample test – Mann Whitney U test, Wilcoxon rank sum test, Kolmogorov-Smirnov test, normal scores test, chi-square test; k-sample tests - Kruskal Wallies test, and Friedman test, Anderson darling test, Cramer-von Mises test.

Unit - VII: Experimental design: Randomization, replication, completely randomized design, randomized block design, factorial design, crossover design, single subject design, non-experimental design.

Unit - VIII: Epidemiological studies: Prospective and retrospective studies, case control and cohort studies, rates, sensitivity, specificity, predictive values, Kappa statistics, odds ratio, relative risk, population attributable risk, Mantel Haenzel test, prevalence, and incidence. Age specific, disease specific and adjusted rates, standardization of rates. Tests of association, 2 x 2 and row x column contingency tables.

Unit - IX: Multivariate analysis: Introduction, Multiple regression, logistic regression, factor analysis, cluster analysis, discriminant function analysis, path analysis, MANOVA, Canonical correlation, and Multidimensional scaling.

Unit - X: Sample size estimation: Sample size determination for estimation of mean, estimation of proportion, comparing two means and comparing two proportions.

Unit - XI: Qualitative analysis of data: Content analysis, qualitative methods of psychosocial research.

Unit - XII: Use of computers: Use of relevant statistical package in the field of behavioral science and their limitations.