and the meanings given to illness. Due to increasing migration and globalisation the challenge of considering diagnosis in the context of culture has become increasingly significant in Europe. And globalization has further led to changes in value systems and our awareness of patients with ethnic minority background.

Over recent decades, there has been an increasing development of psychiatric diagnosing with nosological categorisation combined with multi-axial schemas. Diagnosis, besides identifying a disorder and distinguishing one disorder from another disorder - differential diagnosis, has also an aim to include an overall understanding of the patient's situation.

We witness an upsurge in the attention paid to the cultural limitations to psychiatric diagnostic practice and treatment modalities. Guidelines for the psychiatric profession are in critical focus from a transcultural perspective. Some claim their universality independent of cultural context; others find cultural adaptation useful and necessary.

Do the diagnoses and clinical and ethical guidelines give meaning in the cultural setting? Are they compatible with the cultural values of the therapist and those of the patient and the family? Several sources claim the biomedical paradigm for being Western with insufficient consideration of the socio-political context.

The cultural formulation developed as part of DSM-IV and now DSM-5 is one model to support a systematic review of culture and context in psychiatric diagnosing.

The paper will discuss the advantages and shortcomings of current diagnostic categories and guidelines vis-à-vis the universe of traumatized refugees with other ethnic backgrounds.

#### URL: http://www.mariannekastrup.dk/

*Disclosure of interest* The author has not supplied his declaration of competing interest.

http://dx.doi.org/10.1016/j.eurpsy.2016.01.837

#### S22

## Interview and therapeutic rapport in diagnostic process

### L. Küey

Istanbul Bilgi University, Department of Psychology, Istanbul, Turkey

Diagnostic assessment in psychiatry, as a formulation and as a joint re-construction process between the clinician and the patient, is essential in clinical care. Clinical interview is the crucial tool of the clinician in this process. Accordingly, a two-fold task is faced. On one hand, the clinician is in need of making a comprehensive diagnostic assessment to construct a valid and working formulation of the patient's situation and a treatment plan.

On the other hand, the bases for a psychotherapeutic alliance and rapport should be established. A comprehensive diagnostic assessment aims to bridge the current scientific evidence and knowledge with the uniqueness of the specific person who presents for care. The clinician facing the complexities of the human existence in health and ill mental health constructs working hypotheses in the context of the interview, to understand and formulate the psychopathological state. Clinical interview serving as a practical channel in constructing these hypotheses, also serves as the main tool in establishing a therapeutic alliance. The theory and practice of different schools of psychotherapies offer considerable contributions to the clinician in managing these tasks.

Understanding the meaning of the human suffering through empathy in a judgment free milieu is essential in the establishment of rapport, compliance and a better clinical outcome. This presentation will discuss the complexity of diagnostic process in psychiatry and emphasize the contributions of psychotherapeutic theory and skills and humanistic approaches in this process. Brief clinical vignettes from the authors' clinical practice will be used to broaden the scope of discussion. *Disclosure of interest* The author has not supplied his declaration of competing interest.

http://dx.doi.org/10.1016/j.eurpsy.2016.01.838

## Does diet affect mental health? The role of the gut-brain axis in psychiatric disorders

#### S23

## The role of IgG hypersensitivity and changes in gut microbiota in the pathogenesis and therapy of depressive disorders

H. Karakula-Juchnowicz<sup>1,\*</sup>, P. Szachta<sup>2</sup>, D. Juchnowicz<sup>3</sup>, S. Grochowski<sup>4</sup>, M. Gałecka<sup>5</sup>

S. GIOCHOWSKI<sup>\*</sup>, IVI. Gałęcka<sup>®</sup>

<sup>1</sup> Medical University, Department of Clinical Neuropsychiatry I, Department of Psychiatry-Psychotherapy and Early Intervention, Lublin, Poland

 <sup>2</sup> Vitalmmun Medical Center, Research Department, Poznan, Poland
<sup>3</sup> Medical University of Lublin, Department of Psychiatric Nursing, Inching Paland

Lublin, Poland

<sup>4</sup> Privat Practice New York, Anti-aging and Functional Medicine, New York, USA

<sup>5</sup> Institute for Microecology, Research Department, Poznan, Poland \* Corresponding author.

Depression is a complex, heterogeneous psychiatric disorder with multifactorial aetiology. Substantial evidence indicates that depressive episodes are associated not only with changes in neurotransmission in the central nervous system (CNS), but also may lead to structural changes in the brain through neuroendocrine, inflammatory, and immunological mechanisms. Among the factors deserving special attention connected with developing systematic inflammation are altered intestinal permeability, IgG food intolerance, and changes in gut microbiota.

We present a possible scenario of the development of depression, linking elevated zonulin production, loosening of the tight junction barrier, an increase in permeability of the gut wall, and the passage of macromolecules, normally staying the gut, into the bloodstream, with the immuno-inflammatory cascade and induction of IgG-dependent food sensitivity. Alterations in bidirectional signaling between the gastrointestinal tract and the brain, so called "microbiota-gut-brain axis", may be normalized by dietary immunomodulating factors, including prebiotics and probiotics. In the case of increased IgG concentrations, the implementation of an elimination-rotation diet may prove to be an effective method of reducing inflammation and, in this way, alleviating depressive symptoms.

Given complexity and variety of mood disorders, it is necessary to develop improved integration models. Preliminary study results raise hope that the new methods mentioned above, i.e. psychobiotics, prebiotics, an elimination-rotation diet, may be an important addition to the psychiatrist's armamentarium as therapeutic agents improving the efficacy of the treatment for affective disorders [1-3].

*Disclosure of interest* The authors have not supplied their declaration of competing interest.

References

- [1] Karakuła-Juchnowicz H, Szachta P, Opolska A, Morylowska-Topolska J, Gałęcka M, Juchnowicz D, et al. The role of IgG hypersensitivity in the pathogenesis and therapy of depressive disorders. Nutr Neurosci 2015.
- [2] Kelly JR, Kennedy PJ, Cryan JF, Dinan TG, Clarke G, Hyland NP. Breaking down the barriers: the gut microbiome, intestinal

permeability and stress-related psychiatric disorders. Front Cell Neurosci 2015;9.

[3] Mass M, Kubera M, Leunis JC. The gut-brain barrier in major depression: intestinal mucosal dysfunction with an increased translocation of LPS from gram negative enterobacteria (leaky gut) plays a role in the inflammatory pathophysiology of depression. Neuroendocrinol Lett 2008;29(1):117–24.

http://dx.doi.org/10.1016/j.eurpsy.2016.01.839

#### S24

## Can the pathophysiology of autism be explained by the nature of the discovered urine peptides and dietary antigens?

K.L. Reichelt

Oslo University, Blindern, Oslo and lab 1, Sandvika, Norway

*Purpose* A: 1. To develop the urine analysis for exorphins for routine use in blood and cerebrospinal fluid (CSF).

2. Disorders where patient related validation must be carried out: schizophrenia, depression (uni- and bipolar) and autism.

*Method* A: HPLC-MS/MS (fragmentation mass spectrometry) technology.

With both a specific HPLC retention time and MS/MS (fragmentation) this method is close to an absolute technique for peptide recognition.

B: ELISA against specific proteins (gliadin, gluten and casein and transglutaminase 6) (Table 1 og 2).

*Background* A: schizophrenia: increased opioid peptide levels have been found in Schizophrenia using HPLC, immune assay and behavioral tests. [1–6] as part of a general peptide increase in urine. Since peptides are signaling compounds inhibition of peptidases during transport and work up of samples is critical to prevent break down, which is as expected fast at room temperature.

Strongly supporting is view is the data on postpartum psychoses (a very symptom rich psychosis) where also amino acid sequence of human casomorphin found increased, has been done [7–8]. The opioids can explain most of the symptoms of the psychotic schizophrenic state [6]. It is of paramount importance then to measure these peptides in carefully diagnosed patients on and without medication, in urine, blood and spinal fluid.

As can be seen in Table 1, it is important to measure IgA and IgG antibodies against the precursor proteins for the exorphins, which are found increased by several groups, and also have direct effects on the nervous system [9].

B. In depression increase levels of peptides has been found [18,28,29] and also opioid levels measured as opium receptor binding peptides [28]. In schizoaffective psychosis MS/MS exact detection of exorphins have been published [6]. Also in this syndrome it is critical to be able to measure the exorphins in blood and CSF, especially since the peptidases involved in break down of exorphins are decreased in depressions [30,31]. Inflammatory interleukins are also increased in depressions both uni- and bipolar [32] indicative of inflammatory processes probably in the gut. Inflammatory interleukins increase the permeability of epithelial membranes [33].

C. Autism. Considerable work has been done using HPLC with UV detection and co-chromatography [12,34–40]. However, with HPLC–MS/MS we can ensure that we are measuring only the exorphins and not chromatographically similar peaks that hide inside the main peak [41–43]. We therefore need to validate the new method in autism for both urine, blood and CSF (CSF collected only when spinal tap has to be done in any case).

Inhibition of break down in urine, blood and cerebrospinal fluid (CSF) After extensive testing we have been left with three inhibitors. Citric acid 0.2 M; acetic acid 0.2 M and aprotenine [44,45].

These body fluids will be provided by Prof Dr E. Severance and Prof Dr R. Yolken (Johns Hopkins Univ.) and Prof Dr. Cunningham

(Uppsala Univ. Sweden). Lab 1 provides monovettes with citric acid as peptidase inhibitor for urine collection. Blood will be collected in EDTA – aprotenin vacuum test tubes (Vacutainer) as will be CSF. HPLC and MS/MS detection.

The amount of urine analyzed on the HPLC after work up = 250 nanomles creatinine. To pick out generally active peptides in any one disorder, five and five autistic children or schizophrenic derived and depressive derived urines are mixed, creatinine re-determined and rerun. Peaks that are common to all patients increase or remain the same, while individual peaks of material on the HPLC runs are diluted out.

The complete procedure is published in detail [48]. If we use reporter ions we do not have to match all the peaks as shown in attached figures. On Fig. 1, synthetic bovine  $\beta$ -casomorphine 1-4 (Y-P-F-P) is compared to biologically isolated compound from a batch of five autistic children. On Fig. 2, the faster routine analysis using reporter ions is shown for bovine  $\beta$ -casomorhne 1-4. Top trace is synthetic casomorphin 1-4 and bottom trace is biologically isolated compound. The complete analysis for a series of opioids is published [48].

Program is then in sequence:

– A: further validation of method for urine in the different disorders;

- B: validation of method for blood in the same disorders;

 C: validation of method for CSF (spinal fluid) in schizophrenics and depressive patients.
NB

To avoid overlooking new compounds a complete HPLC run with UV 215 nm (peptide bonds); 280 nm (aromatic groups) and 325 nm (Indolyl-acryloid) shall be run for urines. If sufficient serum is available and spinal fluid these will also be run on HPLC in addition to MS/MS detection.

Antibody assays will be done at Johns Hopkins using ELISA, Transglutaminase 6 antibodies at Lab 1 also using ELISA assay. Figures and references not available in the abstract.

Table 1 Antibodies of type IgA and IgG increased in relevant disorders.

Disorder	References
Autism spectrum	Reichelt et al. [10]; Lucarelli et al. [11]; Cade et al. [12]; Vojdani et al. [13]; Kawashti et al. [14]; Trajkowski et al. [15]; Lau et al. [16]; de Magistris et al. [17]
Depression Bipolar Schizophrenia	Sælid et al. [18]; Maes [19] Severance et al. [20] Dohan et al. [21]; Reichelt and Landmark [22]; Samaro et al. [23]; Dickerson et al. [24]; Severance et al. [25]; Jin et al. [26]; Niebuhret al. [27]

Reference no in parenthesis is found in the reference list. The antibodies are of the IgA and IgG type and not IgE often found in allergic pathology.

*Disclosure of interest* The authors have not supplied their declaration of competing interest.

http://dx.doi.org/10.1016/j.eurpsy.2016.01.840

### S25

# Gastroenterology issues in schizophrenia: Why the gut matters

E. Severance

Johns Hopkins University School of Medicine, Department of Pediatrics, Baltimore, MD, USA

Numerous risk factors for schizophrenia can be reconciled through a common enteric source. These risk factors include systemic