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### КЛЮЧОВІ ПИТАННЯ НАУКОВИХ ДОСЛІДЖЕНЬ У СФЕРІ МЕДИЦИНИ У XXI СТ.

## КЛЮЧОВІ ПИТАННЯ НАУКОВИХ

### УЧАСНИКІВ МІЖНАРОДНОЇ НАУКОВО-ПРАКТИЧНОЇ КОНФЕРЕНЦІЇ

# ЗБІРНИК ТЕЗ НАУКОВИХ РОБІТ

Громадська організація «Південна фундація медицини»

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#### INTERHEMISPHERICAL ASYMMETRY INDIVIDUAL PROFILE, PSYCHOLOGICAL AND PSYCHIC PROBLEMS AND PECULIARITIES

Sinistrality belongs to such a phenomenon rate and importance of which got increased during last years (sinisters amount together with ambidexters is approximately 20%). Interest to sinistrality as a phenomenon grows in many branches of theoretical and practical medicine. The beginning age of epilepsy is earlier for the left-handers, electroencephalography patterns do not depend on the beginning age, febrile states, the disease presence in the family, sinistrality and other factors in them (comparatively to the dexters where these factors are influencive) [14, 137-141]. Some doctors consider that epilepsy is wider-spread in left-handers than in right-handers [3, 429-440; 27, 93-102]. Intellectual disability in children is considered to be connected to the sinistrality [20, 492-500] and dyslexias as well though some scientists consider it only as special way of the people's reading [10, 285-286]. Some scientists consider that apraxy (impossible skills development) deals to sinistrality while the others link its hardness with dexterity on the contrary [12, 2592-2601]. Opinions as for trisomy 21 are also not one-digit. Some

scientists think that its distribution is bigger in the left-handers [6, 365-376; 11, 482-491], the others – in right-handers [19, 113-120; 9, 1758-1772]. There was a research of Down syndrome suffered children from Iran comparatively to healthy right-handers on their language perception laterality pattern [16, 135-152]. Other chromosomal aberrations are also thought to be more distributed in the left-handers comparatively to the right-handers [5, 413-422].

Ambidextrism or mixed-handedness is rather «non-comfortable» state for human being because he/she «can not decide what hemisphere to use». They can have language, scholastic, and mental health problems in childhood and that these persist into adolescence [23, 340-348]. They have atrophy of hippocamp and amygdale in old people [7, 125-134]. According to some data having been received in Austria [17, 150-168], shizophreny is observed more in men dexters and women ambidexters; other Australian scientists [8, 143-152] determined direct link between ambidextrism and shizophreny; though there are data of Taiwan scientists [27, 690-706] that this disease is met in bigger extent in left-handers with increased risk in sinisters men and ambidexters, as Japanese scientists demonstrated [13, 139-145]. One can say about cross-cultural character of shizotype in ambidexters [15, 476-490].

Autism can be described as a disease of left-handers [22, 613-634] together with prozopagnosies (faces disordered recognition) [4, 2583-2589], mirror writing (English scientists study this phenomenon much) [25, 5-13].

There is a hypothesis about pathological right-handedness: temporal epilepsy is accompanied by early damaging the right hemisphere that leads to left hand hypofunction in real weak right-handers that makes them to switch strong right-handedness on. It can be, to the Korean scientists point of view, the first statement for mentioned hypothesis [18, 510-515]. There is a description of so-called Gerstmann syndrome (dyscalculia, dysgraphia, left-right confusion, finger agnosia) in right-handers by scientists from the USA [2, 823591], France [24, 716-727]. One American scientist includes semantic aphasia instead of agraphia in this syndrome [1, 828-833]. Severe disorder of righthanded including somatoparaphrenia or very big mistakes in body and body parts imaging was described by the scientists from Switzerland [21, 175-179].

Our work object was Iranian and Egyptian students of UMSA medical and dental faculty for 10 years. Very important conclusions of our observations were that both Iranian and Egyptian left-handers were much harder or even impossible to solve the tests comparatively to the right-handers. It is explained by left-handers dominant right hemisphere physiological peculiarity – simultant, but not successive, thinking pathway. It was characteristic for real, hidden and non-real sinisters though was more expressive for the hidden and non-real ones. There were bigger amounts of ambidexters among Iranian students comparatively to the Egyptian ones. The ambidextrous students from both countries were especially good while giving individual tasks, based on artistism, these students were capable to solve the tests easily and to show good and excellent results in oral asking while vast intradisciplinary and interdisciplinary integration making. We had an experience of «opened classes» performed by ambidexterous students with their involving all the students in work, with the «students-teachers» proposing and implementing the new forms of work based on interactive ways of study, compiling the new differentleveled tests and tasks in part. Thus our work emphasizes excessive time the necessity to take into account the students' interhemispherical asymmetry individual profile in pedagogical activity with individual approach creating in maximal possible extent.

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