of obese ones (average time 6.1 months, one month less compared to non-obese). During all the monitoring period, children of obese mothers had the highest weight-for-age, BMI-for-age, weight-for-length and length-for-age at the age of 18 months.

Conclusions. With an increasing BMI of mothers, duration of breastfeeding shortens and weight of the children increases. However, we found lean children in the group of obese mothers.

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THIRD-YEAR MEDICAL STUDENTS' ANATOMICAL SCIENCE KNOWLEDGE VS. CLERKSHIP DIRECTOR EXPECTATIONS

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Key words: *competency-based medical education (CBME), anatomical science education, pre-clerkship curriculum*

Background. Our school is implementing competency-based medical education (CBME) in undergraduate medical education (UME); however, the effectiveness of integration of anatomical sciences in this model is unknown. The anatomical knowledge that clerkship directors expect of students prior to clerkship is unclear, nor do we know if it is retained under the old curriculum.

Aim. The specific aims of this research are to: 1) determine which anatomical concepts are necessary for clerkship, and 2) assess clerkship students' anatomical knowledge prior to and at the end of each clerkship rotation.

Methodology. 1. Questionnaires were used as a guide during interviews with UME clerkship directors (family, internal, OB/GYN, surgery, paediatrics, psych.) to determine which anatomical concepts are necessary for each clerkship rotation. 2. Using Aim 1 results, assessments were created to measure students' anatomical knowledge prior to and at the completion of each clerkship rotation.

Results and Discussion. Embryology was the most, and histology the least, prevalent concept deemed necessary by directors. Gross anatomy was identified as a student strength by family and internal medicine; however, it was deemed a weakness in all other rotations. Only students entering internal, OB/GYN, paediatrics, and psychiatry rotations achieved a passing grade (>60%) on the pre-test, and only family med and paediatrics students demonstrated improvement in the post test.

Conclusions. Embryology was the most prevalent theme identified by clerkship directors as most specialties deal with development. Weaknesses included a lack of understanding of arterial branches, anatomical relationships, and MSK. Only paediatrics consistently improved between pre- and post-test scores, which may reflect more clerkship hours in the classroom.

NORMALIZED TOTAL BRAIN, CORTEX AND WHITE MATTER VOLUMES SHOW SEX DEPENDENT DIFFERENCES BETWEEN THE CONTROL SUBJECTS AND SCHIZOPHRENICS: A BRAIN SEGMENTATION STUDY

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Key words: *schizophrenics, normalized volume, sex differences, magnetic resonance imaging, brain segmentation*

Background. The brain size of the brain varies depending on the body size of the normal subjects. Meanwhile, the size of the brain decreases in the schizophrenics. However, only volume comparison may not give realistic results unless they are normalized.

Aim. In the present study, we compared the normalized volume data between the controls and schizophrenics.

Material and Methods. 88 controls (37 females, 51 males) and 57 schizophrenic patients included to the study. Structural magnetic resonance imaging was performed and the DICOM images were analyzed using the FreeSurfer which is an automatic brain segmentation software. The total volumes of brain, cortex and white matter divided to the estimated total intracranial volume for the normalization of the data and results compared between the groups.

Results and Discussion. The normalized total brain fraction was smaller in schizophrenic females (72.86%) than that of control females (75.73%). But there was not differences for the normalized total brain fraction between the schizophrenic males (72.89%) and control males (74.17%, $p \geq 0.05$). The normalized cortical volume fraction was smaller in schizophrenics both for females and males (28.52 and 28.77%) that of the control females and males (29.97%, 29.87%). The normalized white matter volume fraction was smaller in schizophrenic females (30.26%) than that of control females (31.47%). But there was not differences for the normalized total brain fraction between the schizophrenic males (29.50%) and control males (30.32%, $p \geq 0.05$).