

Sharmin Akter

Graduate Student

Behavioral Medicine and Translational Research Lab.

Department of Nutritional Sciences, College of Human Science, Texas Tech

University, Lubbock, TX- 79409

Email: sharmin.akter@ttu.edu

EDUCATION

Master of Science in Nutritional Sciences

Department of Nutritional Sciences,

College of Human Science

Texas Tech University

Lubbock, Texas – 79409

CGPA: 3.94 out of 4.00 (Fall 2018)

Master of Science in Food Technology and Nutritional Science, 2014

Department of Food Technology and Nutritional Science,

Mawlana Bhashani Science and Technology University

Tangail - 1902, Bangladesh

CGPA: 3.74 out of 4.00

Bachelor of Science (Hons.) in Food Technology and Nutritional Science, 2012

Department of Food Technology and Nutritional Science,

Mawlana Bhashani Science and Technology University

Tangail - 1902, Bangladesh

CGPA: 3.57 out of 4.00

RESEARCH STUDY EXPERIENCE

Clinical Trials:

1. To predict weight loss response to Liraglutide (Saxenda®), from fMRI-based determination of Food Cue Reactivity. January 2019- present; clinicaltrials.gov ID NCT03795701

Principle investigator: Dr. Martin Binks

- A 16 week, single center, randomized, double blind, placebo controlled; parallel-group repeated measures design with Saxenda® (Liraglutide 3.0 mg) or placebo group.
- To determine if Saxenda® changes brain functional Magnetic Resonance Imaging Food Cue Reactivity (fMRI-FCR) and whether the magnitude of that change is associated with changes in behavioral and physiological variables (hunger, satiety, cravings and weight loss).

2. Does Increased Egg Consumption Have Cognitive and Neural Benefits in Food Insecure, At-risk Adolescents? May 2019 – present; [clinicaltrials.gov ID NCT03951883](https://clinicaltrials.gov/ct2/show/study/NCT03951883)

Principle investigator: Dr. Martin Binks

- To determine whether an increased egg consumption dietary prescription can have positive effects on functional activity (i.e. fMRI) during an Eriksen-Flanker task, anatomical changes in the brain (i.e. DTI, MRI), and cognitive abilities as measured by the Stop Signal Reaction Time task, Operation Span task, Raven's Progressive Matrices and the Boston Naming Task.

3. Relationships of pain, discomfort and enjoyment during exercise to weight status and diet quality. 2017-2019; [Clinicaltrials.gov ID NCT03173755](https://clinicaltrials.gov/ct2/show/study/NCT03173755).

Principle investigator: Dr. Martin Binks

- Comparison of self-report measurement of pain (Short Form McGill Pain Questionnaire) according to BMI.
- Comparison of self-report measurement of pain (Subjective Pain Rating Scale) according to BMI.
- Comparison of physical activity-induced pain (Subjective Pain Rating Scale) according to BMI.

M.S. Thesis (2018): Psychological and Weight History Variables as Predictors of Initial Weight and Body Fat Loss and the Rate of Weight Loss.

Supervisor: Dr. Marin Binks; Professor, Department of Nutritional Sciences, Texas Tech University, TX, USA

- To determine the predictive value of baseline behavioral and psychological predictor variables such as history of weight cycling, age of onset of obesity, Three Factor Eating Questionnaire subscales (dietary restraint, disinhibition, and susceptibility to hunger), and Power of Food Scale score to predict the initial body weight, body fat loss, and the rate of weight loss.

M.S. Thesis (2014): Study on the effect of storage life of rice bran on the quality of oil.

Supervisor: Dr. Md. Ahiduzzaman; Professor, Department of Agriculture and Food Engineering, Bangabandhu Sheikh Mujibur Rahman Agricultural University, Bangladesh

- Determined quantity of oil produced from different types of rice bran.
- Analyzed deterioration level of rice bran within storage time with iodine value, FFA level, and pH value of oil.

Undergraduate Project (2012): Compositional analysis and development of jam, jelly and squash from strawberry cultivated in Bangladesh.

Supervisor: Dr. Md. Abu Zubair; Professor, Department of Department of Food Technology and Nutritional Science, Mawlana Bhashani Science and Technology University, Bangladesh

- Developed processing method without chemical additives and determined storage life with natural preservatives, and analyzed compositional and nutritional value.

PUBLICATION AND PRESENTATION

- Akter S, Dawson J, Quarles W, Huang WL, Binks M. Association of Body Weight and Fat Mass with Pain Sensitivity and Pain Tolerance (P16-002-19). *Curr Dev Nutr.* 2019 Jun;3(Suppl 1): nzz050.P16-002-19. doi: /10.1093/cdn/nzz050.P16-002-19.
- Akter, S. and Ahiduzzaman, M., 2017. Effect of Storage Life of Rice Bran on the Quality of Oil. *Journal of Food and Nutrition Sciences*, 5(1), pp.11-15.
- Akter S, Quarles WR, Kahathuduwa CN, Davis T, Binks M. Does the Three Factor Eating Questionnaire Predict Change in Body Weight or Body Fat During a Three-Week Calorie Restriction Intervention? 16th Annual TTU Graduate Research Poster Competition; 2017 Mar; Lubbock, TX.

WORK EXPERIENCE

Teaching Assistant: Graduate teaching assistant at the department of Nutritional Sciences, Texas Tech University.

Period: September 1, 2016 - Present

Employer: Dr. Martin Binks, Ph.D.

Associate Professor,

Department of Nutritional Sciences,

College of Human Science,

Texas Tech University

Lubbock, TX

Student Provider (Voluntary): Nutrition Metabolic Health Initiative, TTU

Period: September 1, 2016 – Present

Activities: Provide assistance at weight management clinic, including body composition analysis (i.e., BOD POD, Bio-electrical Impedance Analysis), metabolic testing (i.e., Metabolic cart, MedGem), assisting dietitians/clinicians with nutrition consultations (i.e., preparing visit file, patient's blood pressure and weight check-in, taking visit notes, collecting service payments) etc.

TRAINING

Basic Life Support Training (CPR and AED) for Healthcare Provider, American Heart Association, September 2016 – Present

Environment Health and Safety Training, Texas Tech University, August 2016 - Present

Collaborative Institutional Training Initiative Training (CITI Program), August 2016 - Present

International Teaching Assistant Training at Texas Tech University, August 2016

Industrial training program on quality control and product development as a part of undergraduate coursework, 2011. **Duration:** 15 day

Industry Name & Information: Milk Vita, Bangladesh Milk Producers' Co-operative Union Ltd., Bangladesh.

SCHOLARSHIPS

- Study Abroad Competitive Scholarship, TTU – Spring 2020
- Dissertation Proposal Approval Scholarship, TTU – Fall 2019
- Study Abroad Competitive Scholarship, TTU -Fall 2018
- J.T. and Margaret Talkington Graduate Fellowship, TTU -Fall 2018-2022
- TTU Nutritional Sciences General HS Scholarship – Fall 2018
- Helen C. Brittin Scholarship for Food and Nutrition, TTU – 2017-2018
- TTU Nutritional Sciences General HS Scholarship – 2016 -2017
- Bangabandhu Scholarship (Khagrachari District) – 2001
- Bangabandhu Scholarship (khagrachari District) - 1998

COMPUTER SKILLS

- Proficiency in Office applications such as MS Word, Excel, PowerPoint etc.
- Proficiency in web based programming languages - HTML, CSS, and PHP.
- Proficient in Adobe Photoshop, and other word processing.
- Everyday computing skill such as social media, blogging etc.

MEMBERSHIP

- American Society of Nutrition, February 2017 – Present
- The Obesity Society, September 2016 – Present
- Graduate Nutrition Organization, September 2016 - Present

ACTIVITIES

- Experienced on performing advanced analysis techniques such as - gas chromatography, HPLC, mass spectrometry etc.
- Organized and performed as a co-worker in a workshop about 'Food Processing and HACCP' at the university.
- Participated as a presenter in an international seminar on 'Food Safety and Global Health' at the university.
- Leadership skills developed through involvement in project work, survey and voluntary work, also gained inclusive approach to decision making and other competitive situations.
- Excellent communication skills developed through delivering regular presentations, community nutritional survey, writing reports, attending seminars etc.
- Achieved several divisional awards for cultural activities such as - singing and poem reciting.