Understanding and Treating Metabolic Syndrome in clients with a Serious Mental Illness

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What is actually happening?

The two main physiological factors which are responsible for Metabolic Syndrome at a cellular level are:

**INSULIN De-Sensitization**

The pancreas pumps out Insulin to accommodate the ingestion of Glucose until the cellular receptors become resistant (desensitized) to the effects of Insulin resulting in Hyperglycemia and elevated Triglycerides. Eventually the Pancreas can no longer keep up with the demand for Insulin and reduces production leading to Type II Diabetes.

**The role of CENTRIPETAL ADIPOCYTES**

Unlike other adipocytes Centripetal adipocytes act like little endocrine organs and release Inflammatory Cytokines / Inflammatory enzymes such as Adipocytokinase, MCP 1, TNF a, IL 6, Leptin, and C Reactive Protein which all of which induce vascular endothelial dysfunction leading to Hypertension, Atherosclerosis, Insulin Resistance, and a low-grade arterial inflammatory state.
Factors contributing to Insulin Desensitization and Centripetal Obesity

*** Genetic and Cultural Factors
*** Age
~~~ Weight
~~~ Diet high in processed foods
~~~ Sedentary Lifestyle
~~~ Stress
~~~ Lack of Sleep
~~~ Smoking
~~~ Alcohol Excess
~~ Psychotropic Medications
*** Diagnosis of a Mental Illness
~~~ Poor oral health/hygiene
Psychotropic Medications

Dilemmas for Clinicians

1) Informed choice especially challenging for this client population / compliance issues ++

2) Ethical aspects of prescribing e.g. Olanzapine

3) Pressure to expect GP to handle physical illness

BUT ….

- WE know the extra risk involved for clients with SPMI
- What makes us “specialized” is our RELATIONSHIP with the client
- WE are the PRESCRIBERS and ADMINISTRATORS of the offending medications
The Idea

Utilizing the principles enshrined in both the Recovery Model and Culturally Competent Care a Metabolic Program was designed and implemented by a team of staff at Waypoint Centre for Mental Health Care in Penetanguishene.

1) To provide clients with knowledge regarding the factors which put them AT RISK for Metabolic Syndrome… e.g. cultural, genetic, pharmacological

2) To provide clients with tools/strategies to address the risk factors which are amenable to CHANGE … e.g. dietary choices, ways of becoming active, stress reduction, sleep rituals, spirituality

Throughout the Program there is a lot of repetition of information, props and visual aids are used

Role of Peer Support Worker
Driving Principles

1) Consultation and collaboration with clients:
Four peer support workers are directly involved in the design and operation of the clinic and provide highly detailed feedback which informs the direction of the program at every level. At the end of each module clients complete an evaluation sheet. At the closing session verbal feedback is invited and recorded.

Liaison with the Ontario Peer Development Initiative (OPDI) has been an invaluable collaboration with established mutual benefit.

2) Knowledge Transfer in a way that is readily applicable to the daily life of the client. The supposition is that if a client TRULY understands how the body works and what is happening in Metabolic Syndrome he/she can make INFORMED choices regarding diet, activity, stress reduction, sleep hygiene, addictions, and coping with boredom/emptiness.

A “Special Needs” version of the Program is offered once per year for clients unable to participate in the regular Program.

Emphasis is on Clarity of Thought and Increasing Available Energy NOT Weight Loss!
The Metabolic Team

- Psychiatrist
- Program Coordinator
- Four Registered Nurses
- Pharmacist
- Recreation Therapist
- Dietitian
- Spiritual Director
- Personal Care Consultant
- Special Needs Advisor
- Peer Support Worker
Referral Process

Referrals are accepted from any staff member within the Waypoint OPSP

The existence of ANY of the criteria for Metabolic Syndrome is sufficient

Clients on a second generation antipsychotic medication without any criteria for Metabolic Syndrome are also accepted…. Notably EPI clients

Please take a sample Referral Form
Referral Information

The referring clinician completes a referral form detailing:

- Demographics
- Diagnoses
- Medications
- Height
- Weight
- Waist Circumference
- Blood Pressure
- Blood lipid levels
- Blood sugar levels
- Community Supports
Individual Assessment and Therapy

• Every client meets on an individual basis with:
  
  Psychiatrist/Physician who assesses motivation and readiness, identifies special needs, introduces client to the program, signs MSN applications for diet and transportation as appropriate

• Dietitian designs a diet tailored to the needs, budget, and preferences of the individual

• Therapeutic Recreationist designs an activation program tailored to the physical limitations, budget, and preferences of the individual

• Pharmacist advises on medications and on pain relief strategies

• Metabolic Nurse establishes a supportive therapeutic relationship and monitors measurements throughout the program
Therapeutic Modules

• The client is expected to attend 11 therapeutic modules over 11 weeks, each lasting 2 hours

• The modules are intended to be partly didactic and partly supportive utilizing group therapeutic factors

• During a break in the module the peer support worker provides a nutritious snack for everyone utilizing the knowledge obtained from the program

• Each client sees the Metabolic Nurse to have measurements performed and documented, notably waist circumference, weight, and blood pressure
Therapeutic Modules

1. Understanding my Metabolism
2. My Body and I
3 & 4. Eating Well
5. Meaningful Leisure leads to healthy lifestyle
6. Recognizing and Reducing Stress
7. Filling the Emptiness
8. Sleeping Well
9. Stages of Change / Mindfulness
10. Understanding my medications
11. Walking Tall
Module One: Understanding my metabolism

Welcome and Introductions
Confidentiality
Binder, journal, pedometer, water bottle
Validation of “grief” and “shame” aspects
Tips and Tricks to get started

How food is processed in the body at a metabolic and biochemical level

Introduction to Metabolic Syndrome and the attendant health risks

Risk factors for Metabolic Syndrome and application of that information

Introduction to the lifestyle changes which will promote metabolic health
My Body and I

How the body organs all work together

Respecting and caring for the body. Taking ownership of health ….. Foot Care / Optometry / Dental Hygiene

How to access financial subsidies towards metabolic health as appropriate to financial situation
Eating Well

Reading and Understanding food labels
Eating well while spending less
Importance of eating regularly
Making healthy food choices while eating out
Appropriate food choices within each food group
Mindful Eating
Plate Model / portion control
Canada Food Guide
Meal Planning
Shopping the periphery

Glycemic Index
Meaningful leisure / Becoming Active

Benefits of being active

Components of physical activity and fitness

Recreation and leisure can reduce barriers to wellness

Introduction to local services and amenities

Help with subsidized Y membership, transportation
Stress

Biochemical and metabolic aspects of stress and the way stress contributes to Metabolic Syndrome

Recognition of signs and symptoms of stress

Identifying the deleterious effects of chronic stress

Strategies and local resources for Stress Reduction
Sleeping Well

Biochemical and metabolic aspects of sleep

Relationship between sleep and weight

Phases of sleep and how the body heals itself during sleep

Strategies for developing healthy sleep habits

Use of a personalized Sleep Ritual
Mindful Living

Identifying my readiness to change lifestyle by learning about the stages of change

Learning how to apply Mindfulness Theory to my life and to my lifestyle choices

Mindful Eating exercise with emphasis on food source, journey, sensory experience, nutrition
Filling the Emptiness

Recognition of urges to “fill” which are a result of emptiness rather than hunger

Strategies for emotional and spiritual self-care

Practical tools for dealing with potentially stressful situations in a way that brings peace of mind
Understanding Medications

How medications are metabolized in the body

The way smoking can interfere with medications

Ways to manage pain using medicinal and non-medicinal interventions

Benefits and risks involved with psychotropic medications
Walking Tall

Skills to build self-confidence

Strategies in terms of posture, stride, looking ahead

Recognizing body shape and learning to dress accordingly on a budget

Becoming comfortable with body image
Graduation Day!

Opportunity for clients to refresh their memories and clarify issues taught at the modules

Feedback from clients to clinic staff in oral and written format

Opportunity for staff to encourage clients to attend the Staying Motivated Group and to maintain the healthy lifestyle choices learned during the program

Award Ceremony and party!

Letter goes to Family Doctor / Nurse practitioner regarding clients completion of the program

Client is provided with a Requisition Form to repeat blood-work for which results are copied to Family Doctor
Aftercare

Clients are encouraged to continue psychological therapeutic work with case manager / clinician

Continue with individualized diet

Continue with individualized activity program

Option to attend “Staying Motivated” group
Outcomes

Testimonials and Evaluations describe significant benefits to clients in terms of lifestyle change, awareness, self-confidence, and mindfulness in daily decisions.

Anecdotal feedback includes reports of weight loss of up to 75lbs. Most reports are of weight loss in the region of 4-18lbs during the program. More dramatic improvement in weight, inches, blood pressure, serum lipids and serum glucose levels are reported by clients who persistently attend the Staying Motivated group.

A controlled Clinical Trial has been underway for 18 months and will be completed at the end of September 2013. Early results indicate statistically significant weight loss and waist circumference. Very significant reduction in BP has been noted ……………….STAY TUNED !
The Program was honoured at the Health Achieve Expo in Toronto in 2010 by being awarded the Minister’s Award in the area of Client-Centred Innovation.

This enabled the team to write a book entitled “A Clinician’s Guide to Understanding and treating Metabolic Syndrome”.

Sign up Sheets: Copy of Power-point
Copy of Clinician’s Guide
Ingredients for Success

* Program is client driven and client informed
* Treatment Team is highly committed, enthusiastic, flexible, responsive to client feedback
* Emphasis is on wellness over illness
* Advocacy regarding rights and entitlements… optometry, footcare, dental care, MSN supplementation for diet, transportation etc..
* Knowledge is Power… Making informed choices
* Solutions proposed are practical, affordable, local
* Lots of repetition, use of visual aids, examples etc..
* Group Dynamics very powerful… universality, interpersonal learning, installation of hope, altruism, etc.. Yalom 1995
* Individual sessions allow for interventions to be tailored to client’s unique circumstances
Thank you for your kind attention!

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