Figure 2: Logic model of components, outcomes and needs

Core intervention components:

Educational curriculum (1, 2, 3, 4, 6, 5, 7, 9, 10, 11, 12, 13, 14, 15, 16, 18, 19, 20, 21, 22) Social/peer support (1, 4, 6, 7, 10, 11, 13, 18, 19) Primary care/specialist support (2, 4, 8, 9, 11, 16, 17, 19, 20, 21, 22) Environmental (18)

Theoretical models:

Social Cognitive Theory (2, 3, 4, 5, 6, 7, 11, 13, 14, 18, 19, 21, 22) Social leaning theory (2, 4, 19, 22) Leventhal's common sense theory (2, 4, 19, 22)Dual process theory (2, 4, 19, 22) Self Determination theory (3, 13) Self-regulation model (11, 20) Transtheoretical (5, 16) Mindfulness (8, 14) Ecological model (7, 18) Proactive coping (20) Health belief model (15) Theory of meaningful learning (14) Theory of planned behavior (10) Health action process approach (19) Behavior Change protocol (12)

Outputs:

Dietary knowledge/skills (2, 3, 4, 5, 6, 7, 12, 13, 15, 16, 11, 14, 18, 19, 20, 21, 22)

Group sessions (1, 2, 3, 4, 6, 7, 8, 9, 11, 12, 13, 14, 15, 18, 19, 20, 22, 23)

Physical activity skills/knowledge (1, 4, 5, 6, 7, 13, 14, 15, 18, 19, 20, 21, 22)

Diabetes knowledge (4, 11, 6, 15, 16, 17, 18, 19, 21, 22) Resiliency promotion (1, 2, 4, 7, 9, 17, 21, 19, 22)

Goal setting (2, 3, 4, 7, 10, 11, 14, 15, 19, 22)

Self-assessment/reflection (2, 4, 7, 8, 10, 11, 14, 20)

Role play (2, 4, 6, 19, 22)

Internet delivered sessions (7, 10, 12, 16)

Pedometers (1, 2, 22)

Elicited/non-didactic learning (3, 4, 22)

Culturally tailored education (12, 15, 18)

Storytelling (6, 18)

Medication and monitoring (18, 21)

Meditation (8,14)

Print based sessions (5, 9)

Positive feedback (7, 10)

Play (6)

Social support correspondence promoting reinforcement (6, 18)

Restricted access to high-fat/sugar snacks and drinks (18)

Tailored school meal (18)

School visits by pediatric nurse (6)

Parents attended school visits (6)

Identifying risk factors (4, 22)

Telephone support (17)

DVD (21)

CD-ROM (14)

Proximal outcomes:

Improved diet (1, 3, 13, 14, 18) Improved physical activity (1, 7, 10, 22, 23)

Improved blood glucose levels (12, 15, 19, 22)

Reduced weight/waist circumference (4, 9, 11)

Needs of people with ID:

Limited understanding and inadequate educational resources

Tailored education and resources

Frustration over lifestyle adjustments

- Emotional support
- Environmental considerations

Limited training and knowledge in staff

• Caregiver training and consistency

Potential for effective DSM with appropriate support

- Nurturing sense of competence
- Flexibility

Intermediate outcomes:

Improved dietary knowledge (12, 14, 15, 18, 19)

Physical activity knowledge (19) Smoking cessation (4)

Distal outcomes:

Overall self-efficacy (1, 3, 14, 20, 21) Lower depression (4, 8, 14)

Healthy diet/PA intentions (3, 18)

Dietary Self-efficacy (18, 19)

Walking self-efficacy (22)

Outcome expectations (14, 21)

Locus of control (1)

Social support (1)

Illness belief score (4)

Reduced diabetes distress (7)

