



Implementing the Diabetes Empowerment Education Program

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Presentation Objectives

- Background of the program
- Empowerment and adult education
- The role of the health promoter
- Content and design of the curriculum and lesson plans
- Implementation of the program
- Evaluation of the program

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History of the Program

- Created at the Midwest Latino Health Research, Training and Policy Center at the University of Illinois at Chicago
- Funded by Centers for Disease Control and Prevention- Division of Diabetes Translation
- Used to provide education to health promoters (Training of Trainers), who in turn educate people with diabetes in the community (intervention).
- Training of Trainers in Peru, Puerto Rico, Mexico, US-Mexico Border, California, Indiana, Massachusetts, Texas, Illinois, Ohio, Kansas, and more!

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Program Methodology

- Based on empowerment theory principles
- Freire's principles of adult education
- Participatory techniques
- Delivered by community health promoters-peer educators

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Self-Management Education

- Cornerstone of treatment for all people with diabetes.
- Patient is the center of treatment
- Gives autonomy to the patient
- Attends first to psychosocial and emotional issues so as to free persons for learning.
- Traditionally called “patient education.”

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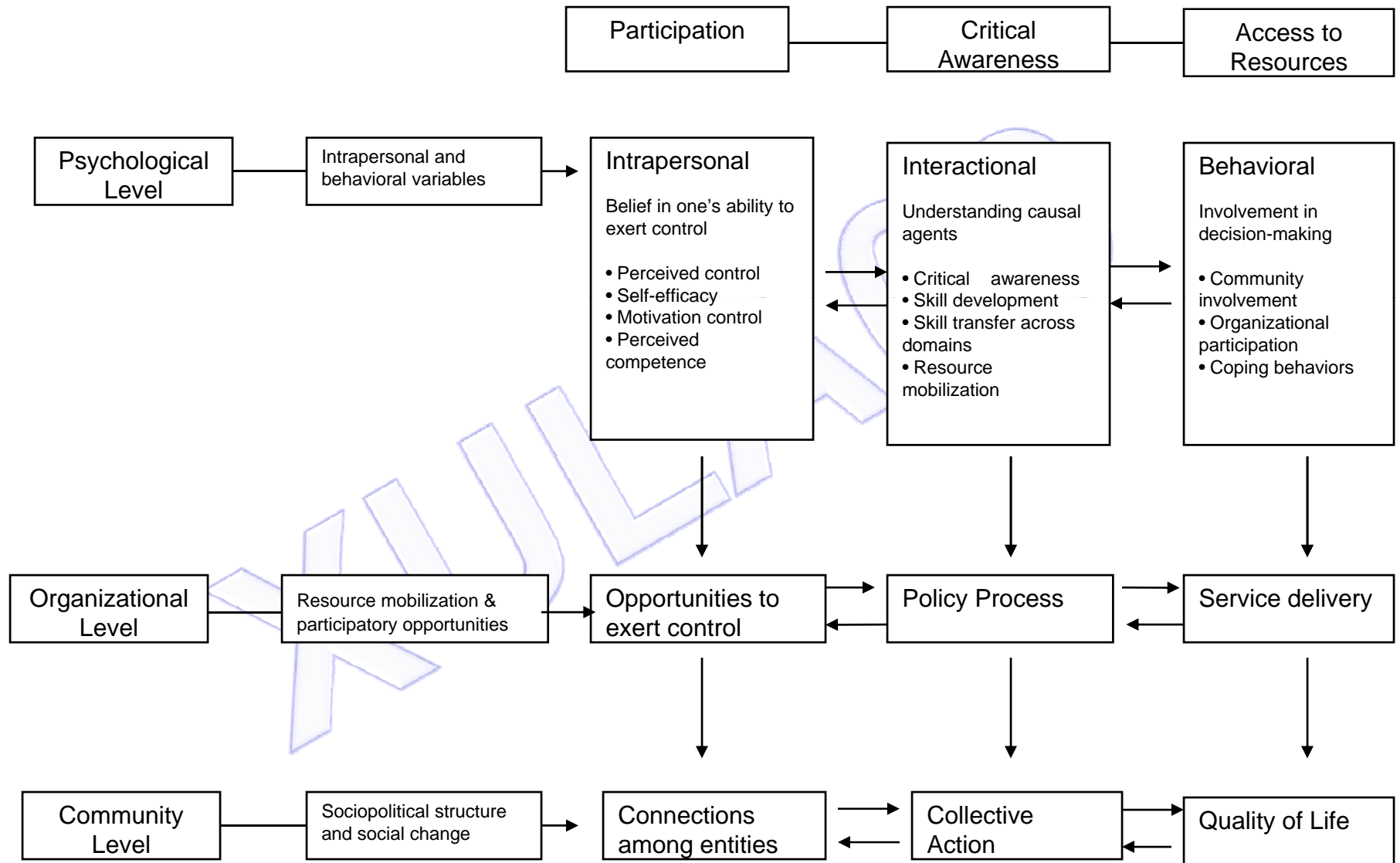


Empowerment

- Power is the capacity to influence the forces that affect one's life.
- Empowerment influences:
 - individual's ability to exert control
 - critical awareness (understanding causal agents) and
 - involvement in decision-making.
- Empowerment should address an individual's family and environment
- In diabetes, it refers to the ability to manage the disease and to mobilize personal and community resources and support.

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Empowerment Theory





Principles of Adult Education

- Relate training to the tasks (self-care).
- Recognize and respect learner knowledge and experience.
- Connect new information to their experience
- Treat participants as adults.
- Involve participants.
- Be flexible and adaptable.
- Create a motivating and functional learning environment.
- Make the training **FUN!**

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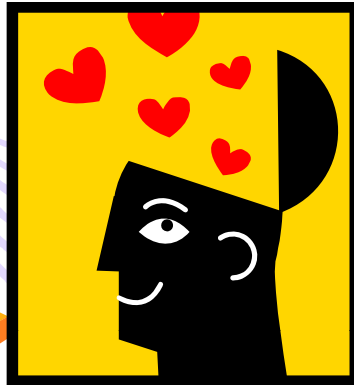
How do adults learn?

- Adults are self-motivated.
- Learn best by building on what they already know.
- Wish to be respected for their experience in life.
- Learn in different ways.
- Learn best when they are actively engaged, when they "learn by doing."
- Adults will be ready to take action and make decisions about their lives.

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Four learning styles

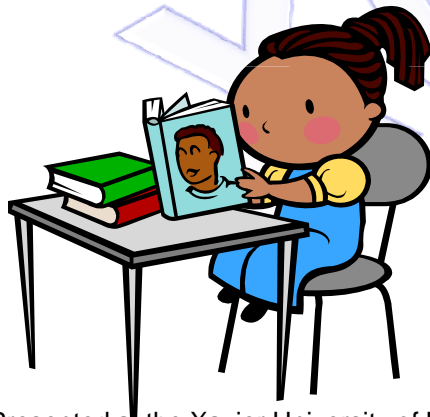


Feelings and experience

See and think



Read, seek information



“Hands-on”

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Principles of diabetes education

- Uses principles of adult education
- Immediate attention to questions and issues presented by participants
- Promotes changes in small steps
- Provides quick feedback for behavior change
- Culturally communicated
- Individualized

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What is Participatory Education?

- A horizontal relationship: facilitator-participants.
- Response to needs: participants as a group.
- Group involvement: planning and action.
- Acknowledgment that the community is the source of knowledge.

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A Transformative Process - Participants...

- Reflect upon aspects of their reality (work, housing, food supply, other external challenges to self-care, etc.)
- Learn to look beyond immediate problems and focus on their root causes (resources, policies)
- Examine the implications and consequences of these issues on self-care
- Develop a plan of action to deal with the problems collectively identified (barriers, etc.)

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A Transformative Process -

Steps:

- 1) assessment of the individual's specific education needs
- 2) identification of the individual's specific diabetes self-management goals
- 3) education and behavioral intervention directed toward helping the individual achieve those self-management goals
- 4) evaluation of the individual's attainment of self-management goals

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The Health Promoter

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Who are Health Promoters?

A human being who uses his or her natural communication skills searching for the wellness of others without expecting a reward

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Health Promoter or Community Health Worker:

- Provides:
 - cultural mediation between communities and health and human service systems
 - informal counseling and social support
 - culturally and linguistically appropriate health education
- advocates for individual and community needs
- assures that people get the services they need
- builds individual and community capacity
- provides direct services

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Why Health Promoters for Diabetes Control?

- Growing use of CHWs in the US, shown to be effective in many health areas
- Rapid emergence of diabetes, with major disparities in prevalence, many un-diagnosed cases, lack of access to healthcare, and poor levels of care due to lack of information
- Diabetes is a self-managed chronic disease requiring many resources and social support
- Few bilingual-bicultural or culturally competent Certified Diabetes Educators (CDEs)
- Peer education works

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Core Competencies

- Communication skills
- Interpersonal skills
- Service coordination skills
- Capacity-building
- Advocacy
- Teaching skills
- Organizational skills
- Knowledge base

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Selection of Health Promoters

“Whenever there is a need to reflect about our reality, and the concrete situation in which we are living, there is a conscious commitment of a person ready to intervene and change it”. (Paulo Freire)

The Health Promoter is part of the community reality, therefore, he/she is ready to intervene and change it.

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Recruitment and Training

- From among existing health promoters (cross-training)
- From diabetes education classes (peers/caregivers)- able to be role model
- Selection by community advisory groups
- Must go through training
- Observe and assist in implementation
- Gradually take over duties

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Supervision

- Support
- Mentoring
- Encouragement for constant improvement

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The role of the supervisor

- Mentor
- Advisor
- Friend
- Gives trust and support
- Shares his/her experiences and knowledge
- Provides encouragement for constant improvement

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Barriers

- Lack of recognition of the Health Promoter by the healthcare staff
- Lack of training
- Overworked in office activities
- Use of transnational models of evaluation
- Conflicts with certification

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Evaluation of health promoter programs

- Anecdotal: stories of success (process evaluation)
- Debriefing
- Logging of activities
- Clinical outcomes
- Personal transformation
- Community recognition

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Health Promoter Duties with DEEP

- Promote diabetes classes and recruit participants
- In class, help participants to weigh themselves, take their blood pressure, use glucose meter and measure their A1c
- Record data in participant files
- Follow-up telephone calls or home visits
- Administration of questionnaires and follow-up surveys
- Convene/facilitate diabetes support groups

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The DEEP Curriculum

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Program Design

- 8-10 weekly diabetes education sessions conducted by a trained promoter/educator
- Session duration: 2 hours
- Monthly follow-up: support groups, informational meetings
- Individual nutritional evaluation by dietitian after the nutrition sessions are completed
- Encourages the engagement of people with diabetes, family, and community members

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Program Goals:

1. Increase knowledge of diabetes
2. Increase self-management skills (starting with self-monitoring)
3. Deal with psychosocial issues
4. Reduce A1c and weight
5. Short- and long-term behavioral change

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Who is Targeted?

- Persons with type 2 diabetes

Particularly those:

- With low levels of literacy
- Who need group support
- Encountering barriers to behavioral change
- Developing complications

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How each module is designed

For Facilitators

- Goals
- Learning Objectives
- Preparation and Materials Checklist
- Content Outline
- Colored boxes guide educational activities
- Evaluation

Lesson Plan

- Opening/what we will cover
- Content/Activities
- Review
- Weekly Action Plan
- Closing

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Lesson Plan: Opening

- Briefly introduces module/session objectives and topics.
- Opportunity to connect with participants as group.
- Reflect on issues and progress in implementing personal action plans.
- Use this time for announcements.

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Lesson Plan: Content

- Making group rules
- Demonstrations
- Group learning activities and games
- Discussions
- Brief lectures using visuals
- Problem-solving activities
- Practice: blood glucose self-monitoring, exercise



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Module Contents:

- 1: Beginning session- Understanding the human body
- 2: Understanding Diabetes and its risk factors
- 3: Monitoring your body
- 4: Get up and Move! Physical activity and diabetes
- 5: Management of diabetes through nutrition
- 6: Diabetes complications: Identification and prevention
- 7: Medication and medical care
- 8: Coping with diabetes- Mobilizing your family and friends

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Weekly Action Plan

- Is critical to behavioral effectiveness
- Encourages step-by-step behavioral change
- Measures progress toward the desired goals
- Lists activities to try between sessions
- Allows participants to choose actions that are important to them
- Allows participants to choose a healthy “reward” for making progress

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Action Planning Criteria

- Is it easy to do?
- How much time does it take?
- Do I feel comfortable doing it? Will I feel embarrassed?
- Is it easy to remember? Are reminders needed?
- Can it be fun?
- How much does it cost? Can I afford it?
- Is it safe? Will it hurt?
- Will I get positive results right away?

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Closing the Session

- Thank participants for coming and sharing.
- Allow participants to reflect, share issues, and answer questions.
- Make announcements and instructions for next session.
- Use a culturally-appropriate prayer, proverb (“dicho”), or song. It must always be positive.

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Program Procedures

Planning and Implementation

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1. Participant Recruitment

- 8 to 12 participants
- Provider/clinician referrals, databases
- Community outreach (Health fairs)
- Churches, schools, senior centers

2. Workshop Registration

- Consent forms (if research project)
- Collect data: demographics, behavioral, anthropometrics and clinical measures

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3. Class Confirmation

- Contact by phone to remind participants and to reinforce learning benefits
- Confirm class information (date, location, suggestions for transportation options, etc.)

4. Session Preparation

- Read lesson plans
- Prepare equipment, supplies, materials and set up place.

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5. At each session

- Attendance
- Patients measure weight, blood pressure, blood glucose
- Review Weekly Action Plans

6. Referrals:

- To medical team if blood glucose under 70 mg/dL or over 250 mg/dL.
- To dietitian after nutrition/meal planning sessions completed

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7. Graduation

- It provides closure and motivation through recognition
- Involves family and community in celebrating accomplishments
- Complete evaluation forms

8. Follow-up

- Weekly or bi-monthly meetings
- Serves to maintain social support for behavioral change, keeping motivation and training new facilitators
- Promotes community engagement when organizing support and exercise groups, walking clubs, etc.

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Evaluation: Key Measures

- Knowledge (Pre and Post-Tests)
- Skills (by observation)
- Self-Care Activities Scale (Behavior)
- Preventive Care
- Depression questionnaire
- Health-related Quality of Life

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Evaluation: Clinical Indicators

- **A1c (best indicator)** (<7%)
- Blood glucose levels (90-130 mg/dl fasting)
- Weight and Body Mass Index (BMI)
- Waist Measure
- Blood pressure (130/80)
- Lipids: Total LDL, HDL, TGL

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Evaluation of pilot study:

Instruments

- Diabetes knowledge questionnaire
- Self-care questionnaire
- Depression questionnaire
- Clinical measures:
 - HbA1c
 - Weight
 - BMI

Demographics

Total		313
Ethnicity	Hispanic	91%
Gender	Female	83%
Ever told had Diabetes		51%

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Results:

Variable	Pre- test	Post-test	Value
HbA1c	8.05	7.56	<.000
Knowledge	53.8%	79.1%	<.000
Days eat healthy	3.5	4.8	<.000
Space carbs	3.0	4.5	<.000
5 Fruit/Veg.	3.7	4.4	<.000
Physical Activity	3.1	4.2	<.000
Test blood sugar	3.5	4.8	<.000
Check feet	3.9	5.3	<.000
Take meds	5.6	6.3	.004
Weight	192.1	190.2	<.011
Eat fat	2.7	2.5	.478
Depression	6.5%	21.4%	.021
Empowerment (n=39)	27.8	30.5	.142

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What NOT to change

- Participatory approach
- Principles of adult education/empowerment
- Contact prior to class
- Creation of rules
- Class exercises (active engagement)
- Measures of blood glucose, BP and weight
- Weekly action plan and its review
- Addressing emotional issues when they appear
- Family/friends involvement
- Class evaluation
- Follow-up sessions
- Referrals

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What may change:

- Location
- Order of lessons
- Some equipment or materials used in exercises
- Nutritionist session
- Program evaluation



Conclusions:

- DEEP is an educational curriculum to address the health literacy and self-management needs of Hispanic/Latino minorities with type 2 diabetes
- It incorporates adult education and empowerment principles, and participatory techniques
- It favors changes in knowledge, behavioral and clinical indicators.

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QUESTIONS & ANSWERS

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