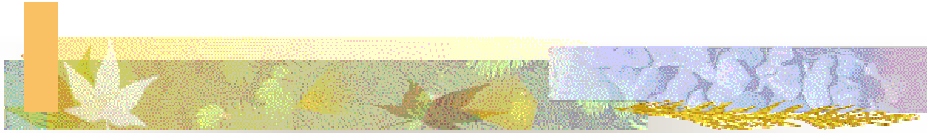


Section Two



Determinants of Food Choice and Physical Activity



Section Contents

- **Continuum of factors**
- **Personal factors**
- **Interpersonal factors**
- **Environmental factors**
- **Modifying and assessing factors**

Unlike addressing chronic disease interventions that can be done at a slow and steady pace, changes to food, physical activity and health behavior during pregnancy demands immediate attention.

This section demonstrates strategies and techniques for use by counselors to help the pregnant adolescent make immediate and relevant changes in their food and physical activity behavior.

Determinants of Food and Physical Activity Continuum

**Individual
Factors**

**Environmental
Factors**

Personal Interpersonal Community Population

Eating and physical activity behaviors are shaped by many factors. Successful nutrition counseling and behavior change interventions must address all of these levels of influence to truly facilitate sustainable behavior changes. In order for an individual to change eating choices for themselves and/or their family, the community in which they live and the environments in which they interact must offer healthy eating and physical activity opportunities that support behavior change attempts.

Determinants of Food and Physical Activity Continuum

Individual Factors

Knowledge, Attitudes, Beliefs
Motivation to Change
Daily Schedule
Self-efficacy

Environmental Factors

Opportunities, Availability
Advertising, Promotion
Policies and Programs
Social Norms

Factors that affect primarily individuals include their personal attitudes toward physical activity and healthy eating; knowledge of nutrition; personal belief systems that impact eating and physical activity (e.g. health benefits of vegetarian diets or increased physical activity); self-perceived ability to make and sustain behavior changes; financial resources to support behavior changes (if needed); and reasons for desiring behavior change.

Factors that primarily affect groups, such as families or peers, include cultural beliefs that impact eating and exercise; availability of adequate time within daily routines or school schedules to make and sustain behavior changes; financial resources necessary to provide healthier food and physical activity choices (as needed); peer attitudes towards health, nutrition, body shape/size and exercise; presence of supportive individuals; peer and parental modeling of healthy or unhealthy behaviors; and attempts to sabotage healthy food choices by family members or peers.

Community and population factors create environments that can either promote or hinder behavior changes made by families or individuals. The presence or lack of safe places to be physically active as well as food venues that offer healthy food choices in reasonable portion sizes can either support or deter an individual's attempts to improve their health. School and childcare policies related to foods served and amount of time allowed for physical activity shape a child's lifelong food and exercise habits. The extent to which youth are exposed to advertising of high calorically dense foods with added fat and/or sugar, either through media use or through direct promotions within school settings, also impacts on the development of lifelong health habits.



Personal Factors

- **Knowledge, attitudes and beliefs**
- **Self-efficacy**
- **Motivation to make change(s)**
- **Psycho-social development**
- **Literary and cognitive abilities**

An important aspect of nutrition education and counseling is to make sure that messages are provided in a manner that is appropriate for each individual's level of psychosocial development. Young children are concrete thinkers and require visual images and demonstrations of specific behavior changes in order to comprehend what constitutes healthy eating and physical activity behaviors. Adolescents begin to develop abstract reasoning abilities, however they often revert to concrete thinking skills when they feel stressed or unsure of themselves. Therefore, a combination of visual images, hands-on learning opportunities, and discussion provide a comprehensive way to reach teens with health messages.

Many individuals possess reading skills that are 1-2 grade levels below their academic achievement. Therefore, education materials should be written at a 4th to 5th grade level, and should include visual aids which illustrate major concepts. Short paragraphs that impart only one or two concrete messages should be used. Information should be provided in short, simple sentences that provide examples of specific behavior changes suggested.

Interpersonal Factors

Parental and family influence

- Family eating and activity attitudes and behaviors
- Family views/knowledge of pregnancy
- Family role modeling
- Role of teen within family structure

Families provide the first examples of eating and physical activity behaviors for children and this influence continues throughout adolescence. Parental attitudes and behaviors related to eating and exercise form the basis upon which youth build their personal belief systems. These attitudes and behaviors change during adolescence in response to psychosocial development.

Pregnancy presents a unique opportunity for nutrition and physical activity interventions. Many teens will be motivated to make improvements in health behaviors in order to have a healthy baby. However, some adolescents may try to hide their pregnancy from family for as long as possible by limiting weight gain. This behavior signals a need for mental health counseling to address family dynamics before nutrition-related behavior changes can occur.

Pregnant teens may be given nutrition and exercise advice by relatives or friends that is based upon folklore or out-of-date practices rather than on current scientific evidence. These misconceptions could serve as barriers to behavior change and should be explored and remedied during counseling sessions. Peer counseling is an effective way of disputing such myths since information given by same age or slightly older peers is viewed as more relevant by pregnant teens than information given by health professionals.

Community and Cultural Factors

- **Availability of socially acceptable food choices in reasonable portion sizes at reasonable prices**
- **Cultural norms and beliefs regarding diet and activity during pregnancy and lactation**
- **Social acceptability of teen pregnancy and of breastfeeding**
- **Availability of appropriate, enjoyable physical activity options**

The community in which a teen lives has a profound effect on her ability to make and sustain behavior changes. Teens site taste, convenience and cost as major factors affecting food choices. The presence or absence of food venues that offer healthy food choices at reasonable prices in locations convenient to teens can have a profound effect on their eating behaviors. In addition, school nutrition environments play a key role by either supporting or undermining healthy food habits.

Family and friends often provide information to pregnant teens about what foods they should and should not eat during pregnancy. Many cultures subscribe to food practices such as “hot and cold” foods that direct foods consumed during pregnancy. Health professionals need to develop a thorough understanding of the cultural and ethnic food habits of teens in their communities in order to provide comprehensive nutrition counseling.

Many teens are reluctant to breastfeed as is evidenced by low rates of breastfeeding initiation among adolescent mothers. In addition, school and family environments are often not conducive to breastfeeding due to issues such as a lack of privacy, lack of support, and inflexible work or school schedules. Some teens may be influenced against breastfeeding by peers who tell them stories about their own failed breastfeeding attempts. Peer lactation counselors can be useful in providing positive messages about breastfeeding and can help the teen overcome barriers.

Physical activity during pregnancy and lactation is another area in which information provided by family and friends may oppose evidence based recommendations. Some cultures and peer groups believe exercise will negatively affect pregnancy outcome. Others believe physical activity will “sour” human milk, making it unappealing to infants. Discussing these concerns with teens *and* their families can promote healthy habits during and after pregnancy.



Population Factors

- **Economic incentives to purchase large portions of food high in fat, calories, sodium**
- **Marketing and promotion of fast foods, snacks to teens**
- **Promotion of formula feeding through hospitals and clinics**

Our society values a good deal, especially when it comes to food. The temptation to “supersize or upsize” food portions for a small fee appeals to teens who are often on limited budgets. For teens with limited abstract reasoning skills, it is hard to comprehend the effect that increased portion sizes will have on intake of fats, sodium and calories, much less the effect that this will have on their short- and long-term health status. Concrete messages that assist teens in understanding these concepts are an important aspect to prenatal nutrition education.

The marketing of high fat, high sugar, calorie dense foods reaches teens in many ways. Increasingly, direct marketing within schools by providing free samples of foods and beverages, coupons, and educational materials with brand name advertising logos is aimed at adolescents and children.

Nutrition messages in the media can be confusing at best. Conflicting reports of the effects of caffeine on pregnancy outcome, non-scientifically based literature linking caffeine consumption to hyperactivity among children and other misinformation can influence the eating and physical activity habits of pregnant and parenting teens. Adolescents need to develop basic skills that allow them to determine credible sources of nutrition information in order to increase their nutrition knowledge.



Modification of Risk Factors

- **Personal and interpersonal factors can be modified via nutrition education and counseling**
- **Community and population factors must be modified through advocacy, policy development, legislation and industry regulation**

Nutrition education and physical activity behavior change programs need to target both individual and group eating behaviors as well as public policy in order to bring about sustainable behavior change. Ideally, environmental factors would be modified through policy development, advocacy, and community development prior to nutrition education and counseling so that individuals and groups can experience success in their efforts to make behavior changes. However, changes in community and population factors involve a larger number of individuals and organizations and can take months or even years to occur. Therefore, a more practical plan is to target all levels of change, with the emphasis changing as the plan proceeds.

Assessing Determinants of Food Choice and Physical Activity

- **Use of open ended questions to assess daily routines, knowledge, perceived barriers**
- **Reflection of statements to engage adolescent and confirm information provided**

Client-centered approaches to nutrition assessment and counseling are more effective than approaches that do not engage clients in active participation and learning. The use of open-ended questions when assessing nutrition and physical activity behaviors provides an opportunity for clients to process information and respond in the way that they feel is most appropriate. Open-ended questions cannot be answered using “yes” “no” or “maybe” but rather require a greater level of detail. Such questions do not end with a question mark or an upturn of the voice as do traditional questions. Rather, they are expressed as a statement that invokes a response from the client. Examples include:

“I’d like to hear about what you eat for lunch on a typical day”.

“Tell me about how you plan to feed your baby”.

“I’m interested in knowing how physically active you have been since you got pregnant”.

“Some teens are concerned about gaining too much weight during pregnancy while others know that a healthy weight gain is more likely to result in a healthy baby. I’d like to know what you think about weight gain during pregnancy”.

Open-ended questions should be followed by reflective listening. Statements made during reflective listening should summarize what the client has said in an effort to confirm that you have heard and understood what the client has said. Some examples include:

“So you know you need to gain at least 15-25 pounds during your pregnancy to have a healthy baby, but you are concerned about losing the weight after the baby is born”.

“You would like to breastfeed your baby because you have read that it is healthier for your baby than bottle feeding, but you have heard stories from friends that make it sound difficult or painful”.

Particular points can be emphasized during a reflection in order to draw out additional information.

“Your fear of not being able to lose weight after your baby is born is so strong that you do not want to gain the recommended 15-25 pounds of weight that has been suggested by your doctor”.

“The stories told by your friends are so scary that you have decided not to pursue breastfeeding even though you have read that it would be better for your baby”.



Assessing Determinants of Food Choice and Physical Activity

- **Non-judgmental attitude and suggestions**

In the words of one teen *“Tell us to cut down on some foods, not to cut them out”*

Finally, teens have said that nutrition and physical activity recommendations need to be realistic and fit into their lifestyle. Providing pregnant adolescents with specific examples of fast food choices that they can purchase is more likely to lead to behavior changes than simply telling a teen that fast food is not healthy to eat during pregnancy.

Providing simple, concrete messages that allow teens to gradually change eating and physical activity behaviors will seem less daunting to the expectant mom and will increase the likelihood that teens will follow the advice.