

Application of an ecological perspective in worksite health promotion: a review.(paper presents protocol that addresses issues relating to the cause of health problems).

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Abstract:

The ecological perspective is a proven approach for worksite health promotion program design. This paper presents a protocol to look at health behaviors from an ecological perspective that assumes multiple levels of influence on health behavior and mandates a range of program design applications. Key examples from the literature will be described. The most significant benefit of using an ecological perspective to view worksite health promotion programs is that the model encourages program planners to view the causation of a health behavior and the related health promotion intervention from a contextual perspective. This increases the likelihood of designing an effective program.

Article:

Health behavior is affected by multiple influences. Often health promotion program planners design programs that assume only one factor will influence the reduction of a high-risk behavior or the maintenance of a low-risk behavior. This paper presents a protocol to look at health behaviors from an ecological perspective that assumes multiple levels of influence on health behavior and mandates multiple program design applications.

The ecological perspective on health promotion programs, as proposed by McLeroy, Bibeau, Steckler and Glanz (1988), provides an excellent backdrop to look at health promotion programs from a contextual perspective. This model purports that there are multiple levels or factors that influence health behavior (see Table 1). An ecological perspective has implications to both explain health behavior and design related health promotion interventions.

As a means to explain health behavior, the ecological approach forces one to look for the cause of a health issue or problem from multiple perspectives. For example, eating behavior may be a function of personal knowledge and attitudes about food (intrapersonal). But, it could also be influenced by peer pressure (interpersonal), healthy food choices in company vending machines (institutional), an ample supply of fresh fruits and vegetables in local groceries (community) and the available of free or reduced price lunch in schools (public policy).

The ecological approach also provides the program planner with a perspective that requires the design of multiple intervention strategies to effectively address a health promotion problem. To this end, the program planner could provide employees with information on stress and stress management (intrapersonal), establish peer stress support groups at the work site (interpersonal), provide a stress management room and physical activity programs for employees (institutional), provide referral to existing community based programs and resources (community), and comply with related Occupational Safety and Health Administration (OSHA) policy (public policy).

The true benefit of using an ecological perspective to view worksite health promotion programs lies with the fact that the model encourages program planners to view the causation of a health behavior and the related health promotion intervention from a contextual perspective. Smoking and tobacco use, physical activity and

the use of alcohol and other drugs provide key examples. An examination of how each of these behaviors can be viewed more effectively from a contextual perspective follows.

Viewing smoking from a contextual/ecological perspective mandates moving beyond simply offering smoking cessation programs to the individual smoker. Smoking is often influenced by social forces (interpersonal factors) and the environment (institutional, policy and community factors). Therefore, a contextual approach would require the program planner to examine smoking policies, worksite smoking areas, and community and state tobacco law, along with programs for the individual to quit. The existing social norms related to smoking and environmental tobacco smoke would also have to be examined if smoking were viewed from an ecological perspective.

The "Just Do It" mentality fostered by a popular athletic shoe company sometimes influences the perception of how to encourage employees to become more physically active. From a simplistic perspective, this makes sense. If health professionals can motivate employees by challenging their work ethic, then they will begin to engage in proper physical activity. This notion denies the basic premise that personal motivation is intrinsic. The health promotion planner will receive better results from providing a physical, social and cultural environment in the workplace that is conducive to employees engaging in a regular regimen of physical activity, whether on or off-site. The ecological perspective approach would require the program planner to:

- Design fitness prescriptions (intrapersonal)
- Encourage co-worker and family support (interpersonal)
- Provide appropriate flex time (institutional)
- Link the program to community facilities and initiatives (community).

The "Just Say No" to drugs campaign provides another example of the limitations of an intrapersonal intervention focus for a complex psychosocial issue. This approach tended to put the onus for drug use behavior squarely on the individual and ignored years of research into the impact of peers, family and environmental factors on drug taking behaviors, intuitively, to many people who do not use illicit drugs, this approach makes sense. The failure of the "Just Say No" to drugs approach is clearly linked to the lack of an ecological approach to this problem.

ALABAMA POWERS "GOOD HEALTH MAKES \$ENSE" PROGRAM

The Alabama Power employee health promotion program, titled "Good Health Makes \$ense" (GHM\$), is in its tenth year of operation. The longevity of the program is related to the use of the ecological perspective when designing program interventions and its inherent ability to change quickly to meet the changing needs and interests of employees. Table 1 provides some examples of how GHM\$ has approached program interventions from an ecological perspective.

It is important to note that the GHM\$ program carefully examines how specific program interventions can be developed and modified to address multiple ecological factors when appropriate. For example, the "Iron Walk" program has been designed to encourage and reward employees to begin or maintain a walking program. In designing the Iron Walk program, the GHM\$ staff included intrapersonal factors (walking), interpersonal factors (competition between sites), institutional factors (corporate-sponsored incentives, use of corporate communication channels) and community factors (the tie into the Iron Bowl football game between The University of Alabama and Auburn University).

The GHM\$ program was initiated in the late 1980s. In the early years, program activities focused mainly on a physical fitness reimbursement program (employees were subsidized for attending approved fitness centers),

and a smoking cessation program. Alabama Power sought proposals to redesign GHM\$ in order to increase overall participation rates and to increase participation within diverse employee groups (e.g. plant workers, high line crews, customer service representatives, etc.). In 1991, Health Enhancement Solutions, Inc. (HES), of Tuscaloosa, Alabama was awarded the contract to redesign the GHM\$ program. HES proposed to look at health promotion from an ecological perspective. HES is presently in its tenth year of providing a comprehensive health promotion program to 6900 employees at over 120 sites. The relative longevity and success of the GHM\$ program is due, in part, to the ecological approach used to design program applications. The GHM\$ program at Alabama Power (APCO) has been designated as a Gold Level Well Workplace (1995,1998) by the Wellness Councils of America and has received both the Governor's (AL) Award for Excellence in Community Health and the U.S. Secretary of Health and Human Services Award for Excellence in Community Health.

Inevitably, not all GHM\$ program activities will address all five factors. Some interventions, such as the distribution of Vitality (the GHM\$ bi-monthly health magazine) to the homes of all employees, may focus primarily on one factor. In this case, Vitality addresses the intrapersonal factor of knowledge acquisition by providing employees and their dependents with accurate health information in a useable format.

In other cases, GHM\$ activities integrate multiple factors. For example, in the Year 2000, the GHM\$ staff conducted multiple on-site programs on over thirty different health topics. These sessions provided employees with accurate health information and skills (intrapersonal), were offered to the employee's family members (interpersonal), often included peer support components (interpersonal) and allowed employees to attend on company time (institutional).

OTHER EXAMPLES OF THE ECOLOGICAL APPROACH

Over the years, manuscripts published in AWHP's Worksite Health have highlighted successful program interventions. Most of these successful interventions have incorporated program applications that address multiple factors of the ecological perspective on worksite health promotion programs. These examples are numerous, and therefore, only a few are provided below.

Scibelli (1996) provided a case study overview of Florida Power and Light's "FPD-Well" program. The diversity of program interventions addressed all of the factors outlined in the ecological perspective. Some examples include the following:

Intrapersonal Factors

- Awareness programs
- Educational seminars
- Behavior-change programs

Interpersonal Factors

- Programs open to family members and retirees
- Peer wellness coordinators used to support program activities

Institutional Factors

- Healthy food choices available in the FPL cafeteria
- Fitness reimbursement program for employees who cannot access the FPL fitness center

Community Factors

- Prenatal educational program services in conjunction with Blue Cross/Blue Shield

- Use of community-based fitness centers

Public Policy Factors

- Compliance with smoking policies
- Support of occupant restraint policies

Diane Boyle Fogash (1997) provides an overview of the health promotion program for the City of Rockville (MD). Some of the ecological factors addressed by this comprehensive program include:

Intrapersonal Factors

- One-on-one health promotion counseling
- Annual health fairs to disseminate information and conduct personal assessments
- Health education and fitness classes

Interpersonal Factors

- Family member participation encouraged
- Volunteer "wellness steering committee" provided a mechanism for employee voice and peer support

Institutional Factors

- Support from city leaders
- Use of health communication channels

Community Factors

- Use of city facilities for programs

Laurie Jones (1999) provides information on the "Medical Self-Care Promotional Strategies" arranged by Medifit Corporate Services. It is interesting to note that this single-focus initiative addresses most factors of the ecological perspective:

Intrapersonal Factors

- Medical self-care information
- Health education workshops

Interpersonal Factors

- Family members encouraged to participate
- Testimonials of co-workers provided

Institutional Factors

- Use of company communication channels
- Video and instructional materials in company lending library

Community Factors

- Primary care physician orientation to program and materials
- Provision of self-care books for waiting rooms

Suffice it to say that the literature on worksite health promotion is replete with examples of effective employee health promotion initiatives. Most of these successful programs have viewed health promotion from a more global, contextual perspective.

CLOSING THOUGHTS

The purpose of this manuscript was to encourage health promotion professionals to think about viewing the design and implementation of worksite health promotion programs from an ecological perspective. Many successful programs include this perspective in program planning. The ecological perspective on health promotion programs provides guidelines for the practitioner to operationalize this approach to the program design process.

The design, implementation and evaluation of worksite health promotion programs with an eye towards the intrapersonal, interpersonal, institutional, community and policy factors that influence health behavior helps the program planner design programs that are more likely to be successful. Also, this approach yields a structured evolution process, allowing programs to change as employees, institutions, environment and policies change. A case can be made that viewing worksite health promotion programs from an ecological perspective is "best practice" for the design of these important programs.

Table 1. Worksite and Alabama Power Examples of the Application of Ecological Principles.

*Definitions **

Intrapersonal Factors	Individual characteristics that influence behavior, such as knowledge, attitudes, beliefs, and personality traits.
Interpersonal Factors	Individual processes, and primary groups including family, friends, peers, that provide social identity, support, and role definition.
Institutional Factors	Rules, regulations, policies, and informal structures, which may constrain or promote recommended behaviors.
Community Factors	Social networks and norms, or standards, which exist as formal or informal among individuals, groups, and organizations.
Public Policy	Local, state, federal policies and laws that regulate or support healthy actions and practices for disease prevention, early detection, control, and management.

Worksite Health Applications

Intrapersonal Factors	<input type="checkbox"/> Educational Seminars <input type="checkbox"/> Health communication activities <input type="checkbox"/> Web-based information to employees
Interpersonal Factors	<input type="checkbox"/> Inclusion of family members in programs <input type="checkbox"/> Using social forces to encourage participation

(walking clubs, etc.)

- Grouping program participants with similar needs
- Using mentors and helpers

Institutional Factors

- Flex time to participate in program activities
- Policies (smoking, safety belts, etc.) that support healthy behaviors
- Healthy food selections in cafeteria and vending machines
- Support for health promotion at all levels of management

Community Factors

- Promote the use of worksite-community facilities for health promotion activities
- Tie programs to existing community initiatives (ACS, AHA, etc.)
- Work with Chamber of Commerce on community initiatives

Public Policy

- Ensure compliance with existing policy guidelines
- Offer related educational programs

*Alabama Power / GHM\$
Selected Examples*

Intrapersonal Factors

- Health and Safety Videos
- Web-based Health Tips service
- 800# telephonic health information service
- Bi-monthly health magazine (Vitality)
- Health pamphlets / other information delivered through company courier mail service

Interpersonal Factors

- GHM\$ walking clubs
- Spouse / family involvement in on-site programs
- Use of peer support activities in weight control and stress programs
- Identification of GHM\$ peer coordinator at each location

Institutional Factors

- APCO employees can participate in GHM\$ programs during work hours
- GHM\$ programs are offered through APCO's web site
- GHM\$ program integrated into administrative units of APCO
- GHM\$ program are tied into the mission of APCO
- Access to APCO communication channels (Target Vision, newsletters, Powerlines, etc.)

Community Factors

- Tie-in to Five-A-Day program
- Work with March of Dimes on parental programs
- Use speakers from community agencies as appropriate
- Work with Chamber of Commerce on

community initiatives

Public Policy

- Design programs based on OSHA and EPA guidelines
- Follow clean indoor air protocol
- Design programs to adhere to ozone policies

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