Arch Public Health
2006, 64, 143-158

Planning for empowerment in health promotion with socio-economically disadvantaged communities: Experiences with a small group approach

by

Van den Broucke S[1,4], Hennion W[2,4], Vernaillen N[3,4]

Abstract

Socio-economically disadvantaged people seldom have influence on the decision making processes which affect their health. Health promotion interventions targeted towards these groups should therefore involve a process of empowerment, enabling these persons to increase control over the determinants of their health and to participate in actions that create a health-facilitating social environment.

The present study examines the possibilities to integrate empowerment in the planning for health promotion with underprivileged people, using a participatory approach in small groups. The focus group method was used to perform a community analysis and health needs assessment in collaboration with representatives of four socio-economically

[1] Catholic University of Leuven
[2] RISO Oost-Vlaanderen
[3] Dienst Stedenbeleid en Internationale Samenwerking, Stad Gent
[4] At the time of the study the authors were associated with the Flemish Institute for Health Promotion, Brussels, Belgium

Correspondence address: Stephan Van den Broucke, Ph.D. Research Group for Health Psychology. KU Leuven, Tiensestraat 102, 3000 Leuven, Belgium.
E-mail: stephan.vandenbroucke@psy.kuleuven.be

deprived communities. A qualitative analysis of the data, consisting of participant observation, narratives and consensus meetings, showed an increased awareness about health issues, participation and sense of control in the participating groups. Based on these results, practical suggestions are offered for health promotion workers to facilitate an empowerment process in the planning for health promotion in underprivileged communities.

Keywords: *community empowerment, social inequalities, health promotion, participatory research*

Introduction

In the past decade, health promotion has become a key issue of the health policy in most western countries. Building upon the principles and strategies espoused by the WHO in its *Health for All* programme (1), policy makers at the regional, national and international levels have introduced a range of measures to improve the population's health expectancy by addressing unhealthy lifestyles and health-damaging aspects in the environment. In addition to education and mass media communication (i.e. the health education strategy) these measures also include structural changes such as legislation, fiscal measures including taxation and subsidies, organisational change, and community development (2).

While aiming to improve the health of the population as a whole, health promotion also focuses explicitly on the reduction of health inequalities (3) . This focus reflects the concern of policy makers and health professionals with the increasing health gap between socio-economically deprived and more advantaged groups. In all western countries, health status as measured by mortality and morbidity for major diseases varies significantly with socio-economic status (SES) (4-6). The association between low SES and poor health is not only caused by the differential access to health care provision, but must also be explained in terms of behavioural and environmental factors. People in lower SE positions engage in more health-damaging behaviours than the economically more advantaged (7,8) and are more exposed to environmental hazards such as industrial toxins, air pollution and low quality accommodation (9,10). In addition, a low standard of living also influences health indirectly by mediation of social and psychological processes such as stress, perceived control, communication skills, social norms, and social support (7,11,12).

Whereas these findings suggest that health promotors should pay more attention to the socio-economically disadvantaged, traditional health education via mass media campaigns or information sessions are known to be ineffective in these groups (13-15). Even if health messages are successfully conveyed, they will not necessarily produce the desired behaviour change. Apart from the financial restrictions which often represent a barrier for healthy behaviour, health may simply not be a priority for people whose daily survival is their most important concern. Moreover, it is difficult to change one's behaviour when one feels helpless and powerless.

A more effective strategy to improve the health of socio-economically disadvantaged people is to bring about structural or organisational changes in order to create a physical, economic and social environment that facilitates health (16,17). For instance, instead of distributing brochures to persuade people to change their dietary habits, it is more effective to reduce the cost of healthy nutrition, or increase the supply of healthy food in food aid centres. Such interventions, which endorse a social ecological rather than a social cognitive view on behaviour change, are ideally done in collaboration with members of the community, as the change process itself contributes to the community members' social and mental health (13). Initiating such changes, however, requires a policy input. Since underprivileged people seldom have access to policy makers and do not feel they can influence the decision-making processes that affect their own health, their participation in local community actions is often low.

In order to break this vicious circle, efforts to promote the health of disadvantaged groups should be efforts to enhance empowerment. Empowerment can be defined as "the ability of people to gain understanding and control over personal, social, economic and political forces in order to take action to improve their life situation" (18). It represents a key element of health promotion, in the sense that increasing control over the determinants of one's health and participating in actions to change these determinants are at the core of the health promotion concept (16,19). However, despite its importance, empowerment tends to be discussed as an abstraction or an issue of political power structures rather than an actual experience or process (20). This is further complicated by the fact that it is often defined for different levels of analysis and practice. Whereas much of the literature on empowerment focuses on the individual level (21,22), some authors also consider the context in which the individual is embedded, such as the social group

or community (13,20). An integration of these views is provided in the multidimensional model of empowerment proposed by Israel and her colleagues (23), which distinguishes between three different levels of analysis (individual, group and community empowerment) and three key elements (control, critical awareness and participation).

While many health promotors are genuinely concerned about empowering the individuals, groups or communities they work with, they are often unsure about how to initiate an empowerment process. The emancipatory and participatory nature of empowerment does not easily fit in with the top-down programming approach that is typical of more traditional health education. However, as pointed out by Laverack and Labonte (24), the tension between the top-down and bottom-up approach can be resolved. While the latter requires health promotors to support the community in the identification of issues that are important to their health and to develop strategies to tackle them rather than following a predetermined cycle of problem analysis and strategy selection, it is possible to systematically consider community empowerment goals within health promotion planning. To this end, Laverack and Labonte (24) elaborated a planning framework in which empowerment goals are considered as a "parallel track", running alongside the conventional "programme track" that focuses on lifestyle change or prevention. By systematically addressing this parallel track throughout the five stages of the planning framework (programme design, objective setting, strategy selection, implementation and evaluation), health promotors can accommodate empowerment within their normal approach to programming.

Across these stages, individuals, organisations and the community as a whole can develop the capacity to create social change. While in much of the literature the community is considered as the main engine of change, it is often in small, informal groups (so-called "primary" groups) that change is initiated (13,14). Since disadvantaged communities seldom have existing formal structures for representing them (e.g. a citizen board or community agency), a grass roots approach, involving small groups in which community members are directly involved in discussions, provides the best way to mobilise community members and stimulate action. Through interacting with others in such groups, community members can achieve the control, critical awareness and participation that are essential for empowerment (25). The support of a group can also stimulate people to participate in more formalised venues of social change, such as citizen boards or political actions.

Building on these views, the present study aimed at exploring the possibilities to integrate empowerment in the planning of health promo-

tion with socio-economically disadvantaged communities. Specifically, the goals of the study were to develop practical guidelines to start up an empowerment process in the community making use of the small group approach, and to assess whether the application of these guidelines would facilitate the discussion about health issues and enhance awareness about the determinants of health problems, as a first step to increasing empowerment among the group members.

Method

Rationale

For the purpose of this study, preference was given to a qualitative study approach using the case study methodology, involving the in-depth exploration of a limited number of cases instead of obtaining quantitative data from a larger number of cases. This approach is more in accordance with the exploratory purpose of the study, and avoids the difficulties involved in using more traditional survey methods among low SES groups, such as sampling difficulties due to the subjects' social isolation, invalid responses caused by their educational deficit, or refusal to participate because of the fear of being controlled. The case study method also allowed for the use of different data sources, including narratives, participant observation, and focus group discussions, and for a comparison and analysis of the data resulting from these sources.

In addition to yielding data, the project also aimed to have a positive impact on the participating groups and communities. To that effect, an empowering research approach was followed (26), whereby the participants were stimulated through focus group discussions to explore the relationship between their living conditions and their personal well-being, and to develop critical awareness, participation and control.

Participants

The study was carried out in collaboration with four socio-economically disadvantaged communities, situated in four different medium-sized cities geographically distributed across Flanders (the Dutch-speaking part of Belgium). These communities were selected from a larger group of 23 urban localities meeting the criteria for a national community development programme aimed at low SES neighbourhoods. Preference was given to urban settings because poverty in Flanders is more characteristic of urban than of rural areas, and because the higher concentration of low SES people in urban areas facilitates their participation in this type of programmes (27). In addition, focusing on communities that were eligible for community development made it more plausible that the

results of the study would be used and that the empowerment process would be continued.

For the selection of the four communities taking part in the study, three additional criteria were applied: the presence of a "psychological sense of community", characterised by a communality of values, shared fate and common characteristics among the community members (28,29); the availability of a local organisation (i.e. community health centre or welfare organisation) that had access to the disadvantaged community, was perceived as legitimate by the community members, and was prepared to participate in the study; and the availability of a "primary group" of disadvantaged persons within the community as a discussion forum. A primary group is defined by primary relations, which in turn are characterised by a small number of members, spatial proximity, a long duration of the relations, well-defined goals, intrinsic value of the relations, intrinsic value and knowledge of other persons, a feeling of freedom and spontaneity, and informal control (31). All three of these criteria were assessed on the basis of interviews with experts from the national community development programme and key figures of the local community. Sense of community was assessed using a 17 item checklist inspired by an existing tool for community development work (30); the availability of a local organisation was checked via an open ended interview question, and the presence of a primary group was assessed using a translated version of a 20-item checklist elaborated by Warren (30). In two of the communities, an informal discussion group of disadvantaged people had already been formed on the initiative of a community health centre. In both other cases, a group was formed especially for the project, starting from informal meetings that had been organised previously by social welfare organisations for educational aims or for reintegration into the labour market. These groups were extended by asking the members to bring along friends and relatives to the meetings, resulting in groups which were varied in composition with regard to age and gender (except for one group, which was an existing women's discussion group) but homogeneous with regard to the difficulty of the members' living conditions. All participants were long-time residents in the deprived community and most of them were unemployed or worked in an insecure situation (e.g. without a contract). For ethical reasons, the participants' medical condition was not assessed. The characteristics of the participating communities and groups are given in Table 1.

TABLE 1.
Characteristics of the participating communities

	Case 1	Case 2	Case 3	Case 4
Location	Gent	Leuven	Ronse	Genk
Number of inhabitants	227,483	87,165	24,341	61,996
Participating organisation	community health centre	community health centre	community development service	community health centre
Focus group	existing group	new group	new group	existing group
Number of participants	15-20	10-15	8-10	3-4

The members of these groups were directly involved in the research project through their participation in focus groups led by a representative from the local organisation who had been trained as a community worker, with a member of the research team as a participant observer. To enhance objectivity of the data, every stage of the research project was discussed and evaluated by a steering group consisting of the research team and the representatives of the local organisations.

Procedure

(i) *Development of guidelines*

The first step of the project involved the elaboration of guidelines for health workers to facilitate community empowerment in the context of health promotion initiatives with socio-economically disadvantaged groups. These guidelines were based on the literature on community-based health promotion and community empowerment, and were discussed with the representatives from the local organisations to ensure their practical applicability. As outlined in the literature on community health promotion, community-level interventions involve at least 5 steps: community analysis and needs assessment; design and initiation of an intervention; implementation; consolidation and maintenance of the intervention; and dissemination and evaluation (28,32). To facilitate an empowerment process, participation of community members must be implied in each of these steps (24,25). For the purpose of the present study, only the first step of the process (i.e. community analysis and health needs assessment) was addressed, in the assumption that active participation by members of the community in the first step would enable ongoing participation during the next ones. The guidelines were conceived as a process model in the form of a flow chart (Figure 1), to

be used in combination with a number of instruments for the different steps of the model: a checklist to identify the strengths and weaknesses within the community based on Francescato's (33) multidimensional methodology for community diagnosis, which identifies 7 dimensions of a community profile (i.e. territorial, demographic, economic, public services, social, psychological and medical profile); and a manual for focus group facilitators to conduct a local health needs assessment and to raise critical awareness about health issues among members of a primary group. The main points covered in this manual are outlined in Appendix 1.

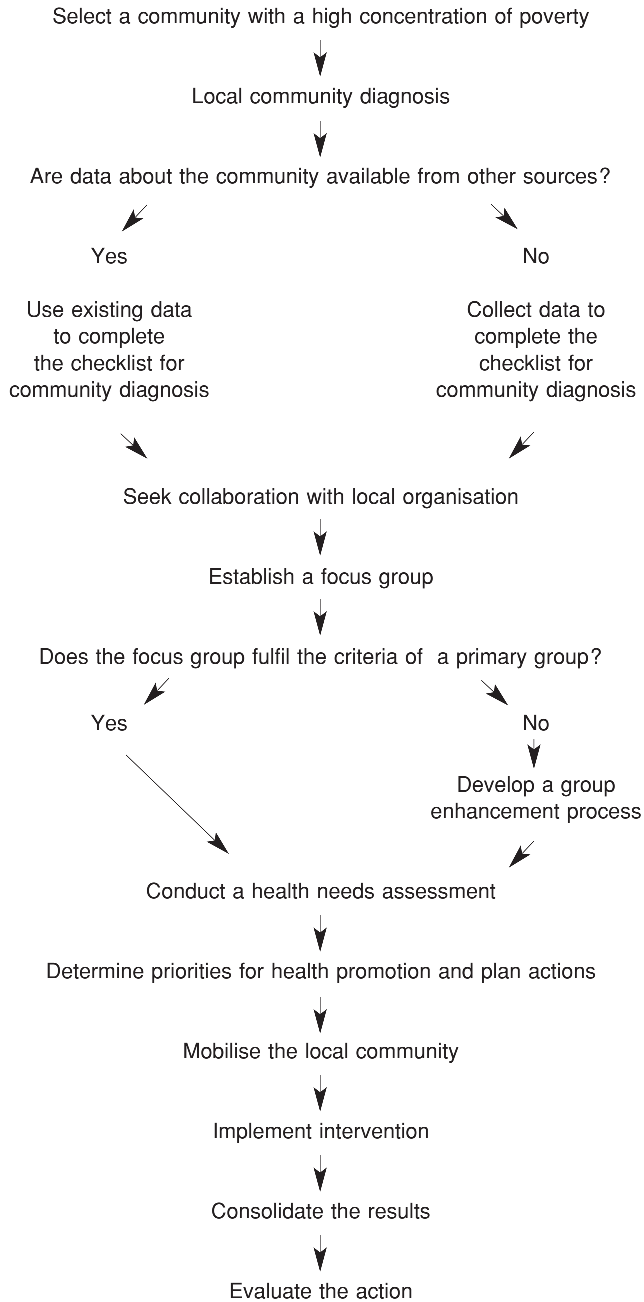
(ii) *Testing and fine-tuning of guidelines*

After incorporating the feedback from the local representatives, the preliminary guidelines and instruments were tried out in the four communities. Specifically, a community analysis was carried out by the representatives of each local organisation, using available statistics and indicators or information from key persons to identify the strengths and weaknesses of their community on the dimensions specified in the checklist. For the health needs assessment, two consecutive focus group meetings were organised with the groups of disadvantaged persons within the community, the first one to make an inventory of health problems experienced by the group members, and the second one to encourage critical reflection and focus on the possibilities for action.

(*iii) Assessment of health needs*

To assess the health needs of the members of each community, participants were asked to discuss in the focus group what they considered as "good" or "bad" for their health. Responses to these questions were carefully noted, and compared with the minutes of the discussions. To ensure maximum participation and validity, these statements were presented to the group members during the next meeting and completed on the basis of their comments. The resulting statements were subsequently classified into one of 6 categories based on Lalonde's (34) health field concept, distinguishing between issues relating to the physical, mental and social health status on the one hand, and to the main health determinants on the other hand (i.e. health-related lifestyle factors, health-related factors in the social or physical environment, and the quality of the health care system). To ensure reliability of the classification, each statement was classified by two independent judges, and Cohen's kappas were computed to measure inter-rater reliability. Depending on the kind of statements (i.e. good versus bad for health), the kappa values ranged between .504 and .807, with a median value of .642 for both series, revealing a sufficient level of reliability.

Figure 1.
Guidelines to establish community empowerment in the context of health promotion



(*iv) Critical awareness and willingness to take action*

Following the conclusion of the community analysis and health needs assessment, the participant observation data and the minutes of the discussions were also used to assess the degree of perceived control, critical awareness and willingness to participate in actions to address health. This was done in an explorative way, using comments and remarks by participants as well as observed interactions in the groups as indicators.

Results

Preconditions for empowerment

As pointed out in the introduction, certain conditions must be fulfilled to enable a health promoting empowerment process in a community. First, community empowerment requires the presence of a psychological sense of community, characterised by a communality of values, shared fate and common characteristics among the community members. Secondly, it is important to ascertain the help of local organisations that have access to the disadvantaged community and that is perceived as legitimate by the community members. Thirdly, one should have access to one or more informal groups within the community to initiate change. As appears from the information provided by the representatives from the local organisations, these three conditions were largely fulfilled in the four participating communities. In each of them, a psychological sense of community could be established on the basis of predetermined criteria, a local organisation was actively involved in the project, and the informal groups that were approached to take part in the study could be characterised as primary groups meeting the criteria specified by Warren (30) and Davies (31). As such, these groups provided a sufficiently safe environment to initiate the local health need assessment procedure.

Community analysis

The application of the checklist for community analysis enabled the representatives of the local organisations in each of the participating communities to draw up a strength-weakness profile of their community by consulting available indicators and information resources with regard to the 7 dimensions of the checklist. This resulted in a community diagnosis for the community. Feedback from the representatives revealed that the checklist largely met the expectations and was perceived as useful, although time-consuming and extensive for use in a small-scale project and less applicable to groups or initiatives extending beyond the

community itself. Using the checklist in collaboration with other local partners was seen as a possible solution for this problem. Also, it was feared that the information deriving from the community analysis would be used for top-down policy decisions.

The feedback of the group members and the facilitators concerning the acceptability and usefulness of the materials, as well as the observations of a participant observer, were used to fine-tune the materials for use in future occasions.

Health needs

Based on the content analysis of the focus group discussions, a number of health problems could be identified for each of the participating groups. Across the groups, factors associated with 'poor health' included poor working conditions (dust, noise, etc.), low income, low education, smoking, stress, unhealthy nutrition, conflicts with neighbours, and too many pets. Issues mentioned in relation to "positive" health were good housing, affordable recreation, a warm bath, hygiene, sports, being able to ventilate anger, persons to talk to, and medication.

The classification of these issues according to the dimensions of the Lalonde (34) model enabled a calculation of the relative frequencies with which each of the types of positive or negative needs occurred. The percentages are given in Table 2.

As this table demonstrates, good health was most often seen in relation to lifestyle and a healthy environment and, in terms of health status, to social and mental health aspects. In contrast, access to health care was less frequently mentioned in association with good health, as were biological factors and physical health. The same applies to needs associated with negative health, although with regard to health status physical health was considered as relatively more important (albeit still less than social and mental health), and health care as less important. Again, biological causes of poor health were not mentioned.

TABLE 2.
Classification of health needs according to the Lalonde model

	Health			Health determinants			
	Physical	**Mental**	**Social**	**Life style**	**Environ-ment**	**Health care**	**Genetic/ biological**
Good for health	1%	16%	21%	34%	18%	10%	0%
Bad for health	9%	13%	20%	28%	28%	3%	0%

In general, these results indicate that the focus group discussions among these groups of socio-economically disadvantaged persons allowed for a broad discussion about health issues, whereby health was seen in a larger perspective including the different aspects of health (physical, mental and social) as well as the main determinants of health. More particularly, the health needs articulated by these people often concern lifestyle and a healthy living environment as well as mental and social aspects of health.

Critical awareness and readiness for action

The explorative analysis of the discussions and interactions in the focus groups suggested that participation in the project induced critical awareness and readiness for action both at the individual and at the group level. At the individual level, many participants showed an increased commitment to participate in the project, a willingness to learn and a readiness to help others. A number of participants demonstrated an ‘aha-erlebnis’ when they became aware of the relation between their living condition and their health status, and mentioned that they had never thought about the possibility to change the system by joint initiatives.

At the group level, an increasing group support and growing awareness of the benefits of working in a group were noticed. These effects were most clearly visible in one of the groups that had been established especially for the study, through the members’ statements that they had “learned a lot from each other”, that they had “experienced the social support of the other group members” and that they “felt stronger to handle problems”.

In three of the four cases the intervention was continued after termination of the study, which suggests that the emerging empowerment process observed in the groups may carry over into the larger community.

Discussion

Empowerment can be a valuable alternative for more traditional health education approaches aimed at socio-economically disadvantaged communities. Since underprivileged people seldom have access to formal representation to influence the decision-making processes that affect their own health, empowerment can represent a vehicle to enhance their participation in local community actions. Moreover, it is suggested that a grass roots approach, involving small groups of community members who are directly involved in discussions, provides the best way to mobilise the community and stimulate action.

While many health promotors are genuinely concerned about empowering the individuals, groups or communities they work with, they are often unsure about how to initiate an empowerment process. The guidelines and tools developed for the purpose of this study offered a way to translate the rather abstract ideas which characterise the empowerment literature into health promotion practice. By applying these guidelines, it was possible to initiate an empowerment process in the four low SES communities participating in the study. Specifically, it was seen that a health needs assessment using the focus group approach enhanced the discussion about health, resulting in the identification of social and mental health together with life-style and environmental issues as the more important aspects of health as experienced by the participants. Furthermore, an analysis of the discussions and interactions in the focus groups suggested that participation in the project induced critical awareness among the participants about the connection between their health, lifestyle and living conditions and about the possibilities to address these factors, and enhanced the willingness to take action, using the existing resources within the community. This critical awareness and readiness for action can be regarded as indicators of an emerging empowerment process that could lay a basis for health promotion initiatives at the community level

As such, these guidelines and tools can help to reconcile the emancipatory and participatory nature of empowerment with a programming approach that is typical of health education. In a way that is reminiscent of the "parallel track" approach proposed by Laverack and Labonte (24), these guidelines can help health promoters to support community members to identify issues that are important to their health and to develop strategies to tackle them, rather than following a predetermined cycle of problem analysis and strategy selection.

Despite these encouraging findings, some critical remarks are in order. Firstly, the findings are limited to the initial stages of an empowerment process (i.e. community analysis and needs assessment). Although the active participation by members of the community during the first phase facilitated their ongoing participation during the consecutive phases as well, there was no possibility to study the empowering effects. Moreover, as the study was restricted to the individual and group levels, carry-over effects on the community level could not be considered.

Secondly, it is evident that the application of the process model proposed here does not automatically produce empowerment. Whether or not an empowerment process can be initiated also depends on several other factors, such as the charisma of the facilitator, the legitimacy of the

local group, or the degree of participation of the group. Perhaps most important of all, the empowerment approach demands a radical shift in the attitude of health workers. Many health professionals still assume the role of experts, trying to solve problems *for* others instead of *with* others. In contrast, empowerment is all about creating the necessary learning conditions and emphasizing the strengths in a group or community in order to enable others to deal with these problems themselves. Or, in other words, the learned *helpless*ness which all too often results from helping others should be replaced by learned *hopeful*ness.

Finally, one should be aware of the fact that empowerment is a process that needs time. Premature termination of empowerment should be avoided as it would imply to bring people into a state of critical awareness, and then to cut off their possibilities to take action. It is therefore important to have sufficient guarantees for continuity and follow-up at the start of an empowerment process.

Acknowledgement

This study was supported by a grant from the Flemish Health Council, Ministry of the Flemish Community.

References

1. WHO. Health for All 2000: Targets for Europe. Copenhagen: WHO, Regional Office for Europe, 1995.
2. Parish P. Health promotion: rhetoric and reality. In R. Bunton, S. Netlleton & R. Burrows (Eds), The Sociology of Health Promotion: Critical Analyses of Consumption, Life Style and Risk. London: Routledge, 1995: 13-23.
3. WHO. Health21: The Health for All Policy Framework for the European Region. Copenhagen: WHO, Regional Office for Europe, 1999.
4. Black D, Morris JN, Smith C, Townsend P, Whitehead M. Inequalities in Health: The Black Report. London: Penguin, 1988.
5. Marmot MG, et al. Health inequalities among British civil servants: the Whitehall II study. The Lancet 1991; 337: 1387-92.
6. Wilkinson M. Income distribution and life expectancy. British Medical Journal 1992; 304: 165-8.
7. Bennett P, Murphy S. Psychology and Health Promotion. Buckingham: Open University Press, 1997.
8. Thomas M, Goddard E, Hickman M, Hunter P. General Household Survey. London: HMSO, 1992.
9. Martin CJ, Platt SD, Hunt S. Housing conditions and health. BMJ 1987; 294, 1125-7.
10. Watt GCM, Ecob R. Mortality in Glasgow and Edinburgh: a paradigm of inequality in health. Journal of Epidemiology and Community Health 1992; 46: 498-505.
11. Marmot MG, Shipley MJ, Rose G. Inequalities in health: specific explanations of a general pattern? Lancet 1984; i: 1003-6.
12. Carroll D, Davey Smith G, Bennett P. Health and social and material circumstances: their origins and implications. Psychology & Health 1993; 8: 295-316.

13. Labonte R. Health promotion and empowerment: reflections on professional practice. Health Education Quarterly 1994; 21: 253-68.
14. Travers T. Reducing inequalities trough participatory research and community empowerment. Health Education and Behaviour 1997; 24: 344-56.
15. Nettleton S, Bunton R. Sociological critiques of health promotion. In R. Bunton, S. Nettleton & R. Burrows (Eds), The Sociology of Health Promotion: Critical Analyses of Consumption, Life Style and Risk. London: Routledge, 1995: 41-58.
16. Kickbush I. Health promotion: a global perspective. Canadian Journal of Public Health 1988; 77: 321-6.
17. WHO. Ottawa Charter for Health Promotion. Ontario: WHO & Health and Welfare Canada, 1996.
18. Zimmerman M. Empowerment and community participation: a review for the next millennium. Paper presented at the 2nd European Congress of Community Psychology, Lisbon, July 6-8, 1998.
19. Rissell C. Empowerment: the holy grail of health promotion? Health Promotion International 1994; 9: 39-47.
20. Raeburn J, Rootman I. People-Centered Health Promotion. Chichester: Wiley, 1989.
21. Lord J, Farlow DM. A study of personal empowerment: Implications for health promotion. Health Promotion 1990; 29: 2-8.
22. Kieffer C. Citizen empowerment: A developmental perspective. Prevention in Human Services 1984; 3: 9-36.
23. Israel BA, Checkoway B, Schulz A, Zimmerman M. Health education and community empowerment: conceptualising and measuring perceptions of individual, organisational, and community control. Health Education Quarterly 1994; 21: 149-70.
24. Laverack G, Labonte R. A planning framework for community empowerment goals within health promotion. Health Policy and Planning 2000; 15: 255-62.
25. Wallerstein N, Bernstein E. Introduction to community empowerment, participatory education and health. Health Education Quarterly 1994; 21: 141-148.
26. Small SA. Action-oriented research: Models and methods. Journal of Marriage and the Family 1995: 941-55.
27. Perkins DD, Florin P, Rich RC, Wandersman A, Chavis DM. Participation and the social and physical environment of a residential block: crime and community context. American Journal of Community Psychology 1990; 15: 55-82.
28. Bracht N. Health Promotion at the Community Level. London: Sage, 1990.
29. Sarason S. The Psychological Sense of Community: Perspectives for Community Psychology. San Francisco: Jossey-Bass, 1974.
30. Warren R. Studying your Community. New York/London: The Free Press/Collier-Macmillan, 1965.
31. Davies K. Human Society. New York: MacMillan, 1966.
32. Tones K, Tilford S. Health Education, Effectiveness, Efficiency and Equity. London: Chapman & Hall, 1995.
33. Franscescato D. A multidimensional Methodology of Community Diagnosis: Identifying Strengths and Problem Areas through Profiles Analysis. Rome: Department of Psychology University La Sapienza, 1998.
34. Lalonde M. New Perspectives on the Health of Canadians. Ottawa: Ministry of Health and Welfare, 1974.