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What is This?
Case study: community development

Movement as Investment for Health

Integrated evaluation in participatory physical activity promotion among women in difficult life situations

Annika Frahsa¹, Alfred Rütten¹, Karim Abu-Omar¹ and Andrea Wolff¹

Abstract: Movement as Investment for Health (Bewegung als Investition in Gesundheit or BIG) was a multidimensional research study in participatory physical activity promotion among socially disadvantaged women in a deprived neighbourhood in Erlangen, Germany. It aimed at making full use of health-promoting effects of movement and developing integrated evaluation through approaches from different disciplines. We defined the target population through national health survey data, and determined important intervention and evaluation dimensions through meta-analyses. A co-operative planning group of women, researchers, policy-makers, and local experts made decisions on the most appropriate procedures. Integrated evaluation in participatory approaches is promising. It calls for context-specific evaluation, requires adaptation of existing approaches or even development of its own evidence base. (Global Health Promotion, 2011; 18(1): pp. 31–33)

Keywords: evidence-based practice, exercise, health promotion, organizational case studies, public health

The BIG project

Movement as Investment for Health (Bewegung als Investition in Gesundheit – BIG) was funded by the German Prevention Research Programme (2005–2008). BIG had two objectives: first, to make full use of potential effects of physical activity (1) in health promotion, i.e. going beyond a bio-medical focus towards fundamental psychosocial and environmental functions; and second, the project aimed to develop adequate evaluation instruments for health promotion and to adapt instruments to the context. We intended to combine established and innovative approaches from diverse backgrounds into one integrated evaluation design.

We used national health survey data that indicated that women with a low socio-economic status are the population sub-group who is least physically active, with a high prevalence of sedentary life-styles, and thus high levels of associated conditions such as obesity. We identified a neighbourhood in Erlangen, Germany, with the highest rate of unemployment, social welfare recipients, and immigrants, and we invited women there to participate in the project. The women themselves suggested using ‘women in difficult life situations’ as the most appropriate term to describe their situation of low income or social welfare, low educational attainment, working shifts in unskilled occupations, unemployment, being a single parent or belonging to ethnic minorities.

Instead of aiming at behaviour change through ready-made interventions, BIG adapted WHO’s Assets for Health movement and established a co-operative planning group including researchers,
women from the neighbourhood as well as policy-makers, and local experts. This group made decisions on planning, implementation, and evaluation of activities. Acknowledging the educational, social, policy and environmental dimensions of physical activity, BIG implemented low fee exercise classes with childcare, improved access to sport facilities, education activities, and activities to improve organizational and political capacities.

Approaches used

Evidence of physical activity (PA) effects on health mainly refers to the physiological dimension of outcomes (2). However, this is a reductionist approach. We use a broader understanding through the concept of movement (1) in that policy- and settings-oriented approaches appear to be most promising to reach people for PA. Some newer studies dealing with diverse populations also include use of community coalitions, mobilization of social networks and ‘upstream’ PA promotion (3). However, few studies provide concrete advice on how to plan and implement health-promoting projects and even fewer focus on movement through participation. This provided the rationale for us to apply a participatory and movement-based approach for BIG and to aim at new evidence built on new paradigms.

From the perspective of evidence-based medicine, controlled and randomized controlled trials are the preferred means to evaluate interventions and accumulate scientific knowledge. Evaluation partners from sports medicine and health economy called for a controlled pre-post-design of the outcome. For the context of health promotion, however, the use of randomized controlled trials has been critiqued due to a number of limitations. Randomized controlled trials are inappropriate for interventions targeted at the level of communities, or those that are targeted at changing organizational set-ups or policies. Further, such trials are unable to capture the perspectives of those for whom health promotion actions have been carried out, and results cannot easily be transferred to other settings or target groups. Alternative evaluation methodologies have been suggested including quantitative and qualitative methodologies that allow evaluation of community and policy-oriented interventions (4). Also, evaluation approaches that identify reach, implementation, and maintenance of health promotion activities have been suggested. The BIG partners from WHO argued for qualitative process, output, and outcome evaluation of health-promoting benefits. We opted for a methodological and methods mix to assess which approaches could be best used to show effectiveness.

The findings and resulting ideas for study design and potential conflicts of interests were discussed and shared with the co-operative planning group. The group decided to implement a multidimensional intervention combining behavioural and structural dimensions. It also agreed to develop and implement a multilevel evaluation framework. Outcome evaluation was partially based on a quantitative pre-post-survey to assess reach, health behavioural changes, health benefits, and the social and health economic impacts. It also applied qualitative methods to assess the outcome effects of BIG among women, policy-makers, and local experts at the individual and organizational levels. Output assessment (implementation of activities) and process evaluation (planning) were mainly based on qualitative methods such as focus groups, qualitative interviews, and policy ethnographies.

How the evidence was used

During co-operative planning, the researchers had to acknowledge that they could not achieve evaluation that integrated all the disciplines in the intended way – a controlled pre-post-study. Participating women voted against the proposed waiting control-group design. They demanded that all women should get the chance to immediately participate in planned and implemented physical activity. In compliance with the participatory approach and the equal say the women should have, we agreed not to use a study design that included randomization into a control and treatment group. Randomization would have potentially resulted in some women taking part in the planning process having delayed (or being denied) participation in BIG actions (e.g. exercise classes) and this was considered to be inappropriate. Using a control group was not considered appropriate, since the overall reach of the interventions within the settings was seen as being an important dimension of the evaluation – the effectiveness of doing the project.

Meta-evaluation from the BIG project shows that this adaptation to a simple pre-post-design within a
participatory approach presented a major problem to some of the research partners who were used to the evidence-based medicine paradigm. They reacted with different coping strategies. The project evaluators from sports medicine remained within the paradigm of evidence-based medicine but managed to adapt their instruments to the demands and needs expressed by the women in the co-operative planning process. They used validated and reliable but exclusively non-invasive instruments (e.g. measuring the heart-rate variability as an indicator of psycho-social stress). The partners from health economics could not carry out the evaluation as intended and did not adapt their approach, which left the project without any health economic effects measured. The central results of BIG, however, were measured outside the evidence-based and medicine paradigm. The limits of the quantitative design in assessing potential health benefits, especially at the social, organizational, and policy levels prompted us to do further qualitative research. For example, through our use of focus groups, individual interviews, participatory observation, and policy ethnographies, we were able to document and analyze changes linked to the participants’ health (e.g. subjective quality of life, empowerment, or organizational changes). For the partners from sports medicine and health economics, however, these changes were viewed as side-effects, rather than meaningful indicators of the effectiveness of BIG.

Conclusion

BIG implemented a movement that combined behaviour-oriented activities with actions geared at structural changes. Process evaluation techniques provided insights into assets for policy-making in health promotion (5) as well as organizational readiness for the implementation of PA promotion among women in difficult life situations. Outcome evaluation strategies revealed the ability of BIG to reach its intended participants as well as demonstrating effects concerning the participating women’s physical, mental and social well-being (6). BIG overcame political barriers that inhibited women’s access to sport facilities. It is sustained through integration into local public administration and may be scaled up to other regions.

The implementation of BIG’s evaluation also exposed potential barriers of conventional strategies and designs that are based on the paradigm of evidence-based medicine, a highly positivist endeavour. One lesson learned might be that scientific disciplines need to adapt their approaches to the specific demands of health promotion projects, as was illustrated (at least in part) by our sports medicine research partners. Our experiences in BIG underline the importance of continuing to develop and maintain two of the cornerstones of health promotion – relevance and participation. When intervention study participants (e.g. women living in difficult situations) call for significant changes to project planning, implementation, and evaluation, health promotion researchers and practitioners need to be ready to respond with creative and doable alternatives.

References