Reviewing research trends in health education and health promotion for children: The need to address issues related to social class, cultural background, policies and research methods

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The review of researches on health education and health promotion for children demonstrates that there are factors that influence children's behaviors that have been more studied than others. Historically, research priority has been given to psychological factors, such as the cognition, the affectivity and the role that significant others have in children's health attitudes and behaviors. More recently, researches increasingly tend to address the influences of both the community organization and the school environment. Nevertheless, social class, cultural background, policy and research method issues are still less studied factors. It is suggested that new research endeavors can also address the less studied factors so that these areas improve and health education and health promotion for children can better fulfill their roles.

A revisão de pesquisas sobre educação em saúde e promoção de saúde para as crianças demonstrou que há aspectos que influenciam os comportamentos infantis mais estudados que outros. Historicamente, as pesquisas têm priorizado os estudos dos fatores psicológicos, tais como a cognição, a afetividade e o papel desempenhado por pessoas de referência para as crianças e que influenciam suas atitudes e comportamentos ligados à saúde. Mais recentemente, as pesquisas tendem a incluir as influências dos aspectos da organização comunitária e do ambiente escolar. No entanto, são ainda menos pesquisados os fatores da classe social, da bagagem cultural, de políticas públicas e de metodologias de pesquisa. Sugere-se que os novos esforços de pesquisa se voltem também para os aspectos menos estudados a fim de que estas áreas do conhecimento avancem e a educação em saúde e a promoção de saúde possam cumprir melhor seus papéis.

The concepts of health education and health promotion are not synonymous. Health promotion is broader and encompasses health education. Candeias (1) argued that these concepts have, often and primarily in the developing world, been used interchangeably which led to lack of technical understanding. Thus, it is important to emphasize their distinction. Green and Kreuter (2) explain well their differences. According to these authors, health education is: "Any planned combination of learning experiences designed to predispose, enable and reinforce voluntary behavior conducive to health in individuals", and health promotion is: "Any planned combination of educational, political, regulatory and organizational supports for actions and conditions of living conducive to health of individuals, groups, or communities".

It is important to note that the etiology of health education conceptualization was rooted in a narrow bioreductionist medicine, which has had a profound impact on the way health education programs have been carried out and in turn have

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achieved limited success (3). Nevertheless, Stambler (4) argued that despite the medical monopoly, health education in less developed countries has been changing to focus more on social-cultural decision-making than to endorse biomedical prescriptions. This shift was reported to have occurred since the 1970s in Brazilian health educational projects (5). The social-cultural decision-making framework is a facilitative approach, rather than a prescriptive approach as the biomedical framework is (4), and as such addresses equity and sustainable development issues. Considering health promotion, Minkler (6) gives a historical overview of the field. He explains how health problems have primarily focused on the individual behavior change instead of the social aspects that lead to them. In contrast to this emphasis, the author states that: "A voluminous body of evidence has demonstrated that social class is one of the major, and perhaps even the major risk factor for disease". Thus, this author argues for health education to move to health promotion so that both the individual and social levels will be considered.

Because health education and promotion have primarily focused on the individual, more research on this level has been developed. In fact, Green (7) stresses psychology as being the field that offers proportionally more contributions to health interventions. For this reason, the psychological contributions are first considered.

Cognitive influences

As in any research area, the conceptual definitions used are the basis of and direct the studies conducted. In the case of health education, Kalnins and Love (8) summarize the two theoretical approaches to children's concept of health and illness. According to them, one is the cognitive developmental view represented by Piagetian theory. The other is the expectancy theory from social psychology predominantly represented by Gochman's work that studies the linkages of children's salience, perceived vulnerability and potential health behaviors. These authors further explain the shortcomings of the findings of the two theories: "Gochman's work shows that health is important only to some children and the health research from the Piagetian framework shows that logical deductive thought may not occur until adolescence... Given the low importance children place on health and the cognitive limitation in understanding causality and time, it is questionable whether children would translate salience or perceived vulnerability into actual health behaviors" (6).

However, based on these two theoretical approaches, some health education solutions have been proposed. One the one hand, Natapoff (9) using Piaget's theory explains that only in adolescence it becomes possible to conceptualize future. Therefore, he suggests that health education would be more effective if until this time it is concentrated on children's present desires and aims. One the other hand, Gochman and Saucier (10) propose in some specific circumstances health education aimed to increase children's perceived vulnerability. These authors contend that perceived vulnerability is not very likely to change as children grow older, but when children are about 2 or 3. Thus, they contend that health education programs should be targeted on preschool years. Still, Bruhn and Parcel (11) also suggest that health education should start in the early years. These authors conducted a study where the results illustrate that a sample of 4-year-old children was not yet affected by parental modeling concerning health behavior. Thus, they hypothesize that this could be an indicator of this age being one in which educational interventions can exert an influence. In all, the ideal and specific ages for more effective interventions are not well-established yet.

Affectivity influences

According to Bruhn and Parcel (12) affective influences on children's health were not studied as much as the cognitive ones. Yet some studies came to the conclusion that those children's health attitudes and behaviors are also correlated with children's affectivity. For example, Lau and Klepper's (13) study shows that children's self-esteem was the main factor affecting the children's illness orientations among a variety of factors such as ethnicity, parents' age, parents' intellectual ability, family structure, health service utilization, children's bad health, independent training, punishment and control and the child's intellectual ability.

Furthermore, Lewis and Lewis (14) contend that poor utilization of health services by children was linked to poor self-concept and poor cognitive skills. Still, Gochman and Saucier (10) claim that perceived vulnerability of health is an anxiety-like condition, not positively correlated with self-concept. In Brazil, a study conducted by Schall (15) detected emotional conflicts experienced by children. This author found gender differences in these conflicts. In contrast to the boys, the girls were described as more likely to express lower self-esteem, be less competitive and less physically aggressive towards others. While this author argued that those conflicts might have a influence later on their health and well-being, it would be necessary to conduct longitudinal studies to verify how and to what extent these conflicts remain and will or will not influence their health.

Despite the few studies on affectivity, it is becoming to be recognized. Gochman and Saucier (10) even envision health education programs as being multitargeted because of the systemic and affective qualities of perceived vulnerability.

Significant other's influences

Another trend of the psychological studies is to identify the influence that significant other people have on children's health attitudes and behaviors. Lau et al (16) propose the windows of vulnerability model which: "...predicts that parental influence on children health beliefs and behavior generally will persist throughout life unless the child is exposed during certain critical periods to important social models whose health beliefs and behavior differ from those of the parents".

These authors point to the evidence suggesting that there is a gradual increase in parental influence as the child grows

older. Before puberty, Lau and Klepper's (13) study shows a very feeble link of parents' attitudes to preventive health care and children's health beliefs when they were in their first to sixth grade. These authors also explain that children's age is important when measuring how diverse family structures affect children's health.

In regard to the way parents influence children, it seems that their health behaviors are more important than their health beliefs. This is reported to be true for 6 to 17-year-old children in the study by Dielman et al (17). In the light of this discovery, these authors suggest health education "through behaviorally oriented preventive health programs among children". This same kind of behavioral influence does not affect only small children. For instance, Lau et al's (16) study testified that young adults in the first three years of college are more affected by their parents' health-modeling behavior than their peers.

Because parents' influence on children is great, not only how health orientations are transmitted to children are studied, but also what kind of features parents exhibit that provide better health care to their children. Floro and Wolf (18) cited Blumberg (1989) who: "...has examined worldwide evidence to conclude that women's education is associated with dramatically reduced infant and child mortality and improved child nutrition. She also notes that mother's education almost invariably has a stronger effect than father's education on lowering infant mortality and improving family health".

It is important to stress that parents' education may have psychological effects that can translate into better health for their children. For example, LeVine (19) considers schooling as a psychological variable which leads women to be more self-assertive in their care of the health of their family.

The family unit seems to influence parents and subsequently their children, to be healthier. Zimmerman and Connor (20) found in their study that family members are the most important persons in the change of individual health behaviors. Umberson (21) also reported: "...marriage and presence of children in the home have a deterrent effect on negative health behaviors".

It is important to stress that although parents exert influence on children's health behavior, this influence is not yet well-understood. Perry et al (22) also emphasize that ways to improve this influence have not been well-studied. It is also not clear whether parental health influence may occur due more to the socialization process than to children's psychological needs. But the fact that at least some of this influence is due to socialization is proved by Lewis and Lewis (14) who challenge the notion that children are totally dependent on adults' attitudes and behaviors in respect to health behavior. These authors demonstrate that some children can be active participants in their health status and that health care for children can get better when researchers change their paternalistic views towards children.

Community, social and cultural influences

Community involvement in health development is both a theoretical and a practical concept, which should translate into effective collaboration among district health services and local communities (23). It is important to note that community involvement in health development must not be seen solely as specific health services related actions because other factors such as education and sanitation lead to health development.

Theoretically, the community as a unit of analysis has been gaining recognition. For instance, McLeroy et al (24) explain the use of a conceptual ecological model for health promotion that includes five levels of analysis: Intrapersonal factors, interpersonal processes and primary groups, institutional factors, community factors and public policy. Further, Waitzkin and Britt (25) discussing the changes medical discourse can suffer contend that these should take place both at the workplace and community levels.

This renewed theoretical interest in the community means that in practice health educational programs are no longer only in the hands of medical technology and professionals but are increasingly owned by individuals, families, schools and work sites (26). Following this trend, Focesi (27) argue that health educational programs should be organized by a staff that stands for the school, the public health clinics, the family, the school community and regional health experts. Moreover, Wallerstein and Bernstein (28) state: "Through community participation, people develop new beliefs in their ability to influence their personal and social spheres. An empowering health education effort therefore involves much more than improving self-esteem, self-efficacy or other health behaviors that are independent of environment or community change; the targets are individual, group and structural change".

Community organization has, recently, received more emphasis on the development of health promotion programs. Gallagher (29) points to the program entitled "*Health for all by the year 2000*" which uses as strategy not expensive technological medicine, but the community involvement. Green (26) also describes a renewed tendency to focus on alliance among sectors, institutions and people at communities. The Division of Health Education of the World Health Organization has established a threefold strategy to promote health and community action for health in developing countries. This strategy includes advocacy, social support and empowerment (30).

At the empirical level, Andes (31) has suggested the importance of studying community factors that contribute to better health for children. This author comparing two communities in Peru shows: "If a community does not have a social organization such that individuals can gain access to the resources necessary for a healthy standard of living, children's survival chances are jeopardized".

The schools' influences

Schools have been seen as an ideal place for assessing children's health education. For this reason, their influence has been studied. According to Allensworth and Wolford (32): "Schools have been identified as a primary vehicle by which school-age children and youth can be informed about factors that will influence their health". These authors explain that the

compulsory character of schools contribute to this importance. However, it should not be neglected that this obligatory feature is not a reality for all children. Some children - largely the poor - are out of school and thus, not reached by health education programs. Still, there are a few children at-risk who may be not reached by the health programs they need because they do not show any sign of maladjustment (33). Finally, even whey children may evince problems, schools may be ill prepared to serve them. This is, in general, the case of American children who are chronically (34) or mentally ill (35).

However, when children do have access to schools, it does not always mean that they will only receive instructional programs targeted to cognitive changes. It can signify that these programs, intended or unintended, foster changes in children personalities and behaviors by the way they are organized and are part of complex environments. It may also mean that the schools become providers of health services or coordinators of them as proposed by the staff (36) of the newsletter Concern. In reality, in order that schools promote children's health they must act as social spaces well integrated with other health sectors (37). This integration means not only service delivery but also a shared understanding of what are the educational and health concepts used. In an interesting study conducted in São Paulo, the authors demonstrate how the physicians chairing public health clinics had different perceptions about education and health, and that most of these perceptions did not coincide with innovative perspectives in these areas (38). Further, in another study in São Paulo, the authors state that having professionals of diverse expertise (mental health, education and public health) broadened their vision of the problems and facilitated the collective construction of work dealing with school children from disadvantaged backgrounds (39). Thus, it seems necessary for best results to allocate time in order that professionals discuss the concepts and practices related to education and health.

Considering the role schools may have had in promoting children's health, Parcel et al (40) provide a historical overview of this issue. These authors explain that in the beginning of the twentieth century the roles were three: Health services, school health education and the school health environment. But in the last decade the roles were amplified and further included: School counseling and psychology programs, school food services, school physical activity programs, integrated efforts of schools and community agencies to improve health of students and school-site promotion programs for faculty and staff. The authors advocate that the combination of all these organizational interventions in health education may not only add one to another, but also produce synergistic results. It is important to stress that this new approach to comprehensive school involves more social mobilization since it is necessary to get the consent of more people so that it can work. This is seen in Dryfoos and Klerman's (41) research on the implementation of a school-based clinic, an integrated effort of schools and community agencies, where there is need for support of not only the school personnel, but also of several agencies and the parents.

In regard to the evidence related to the importance of school environments, Hawkins and Catalano (42) revising the literature conclude that: The students' experiences in schools (such as low level of academic achievement, low level of attachment to school and commitment to education) aid to establish their vulnerability to health problems such as drug abuse, crime and delinquent behavior. These authors highlight the need for supportive and clear expectations for student behavior as part of healthy school environments. These authors discuss a study that has shown that students are more likely to enjoy schools if there are organizational changes helping them in the stressful transitions periods that they go through such as changing from elementary to middle schools or from middle to junior high schools. Still, these author discuss a research recommending that the students at higher risk of having health problems could benefit more from school changes that eliminate tracking in secondary schools and promote classroom interactions among all students. Finally, these authors suggest that healthy policies may be related to clear expectations and mean no double standards. They base this argument on a research that evinced that teachers' and principals' nonsmoking behavior and not only the absence of areas for smoking on campus are both part of the effective ambience that reduces the prevalence of smoking behavior among students.

Thus, it is important to stress that the traditional and more privileged focus of health education on individual behavior change has limited the development of both empirical researches and conceptual frameworks like schools as social environments that affect children's health attitudes and behaviors. The school environment conceptualization has only changed in the 1980s from a closed system model to one of an open system model where important influences come both from within and the outside. This change occurs 20 years later from the time when Scott (43) advocates that the study of organizations should begin to conceptualize them by being open system models.

It is however a positive fact that the new conceptualization in health education that includes the school environment does not neglect the individual. For instance, the conceptualization used by Parcel et al (44) is multipronged. In their research they contend: "The program of interventions considered the interactions among environmental, cognitive and behavioral factors, for which social learning theory (SLT) provided the theoretical framework". The conceptualization became so broad that it is not surprising that schools, according to Butcher et al (45), can be the place through which almost 1/3 of the American 1900 Health Objectives for the Nation could be endorsed.

As the conceptualization changed, so did some recent research studies on health education that stress the importance of many combined strategies for the understanding of health attitudes and behaviors. Stevens and Davis' (46) study includes testing all these variables: "Students' educational programs, staff in-service programs, cafeteria food option, non cafeteria food option, use of building, staff services, student services, community services and district-policy".

Finally, it is important to stress that the social importance of schools as intervening institutions has led to the emergence of the concept of their role as potential "health promoting schools". Although this concept is relatively new, since it

emerged only in the last decade (47), it is important to emphasize that ideas related to this concept have been present before. In fact, since the 1950s, the World Health Organization (WHO) has organized expert committees and related reports on health and educational themes that proposed many ideas and practices of the comprehensive framework role schools can have as "health promoting schools" (48-55). The concept of "health promoting schools" is based on both the Declaration of Alma Ata and the Ottawa Charter for Health Promotion. It means that schools should promote strategies targeted to reduce disease and promote health, which seek coordinated changes in both the individual and social levels.

The less mentioned units of analysis: Social class, culture background, policy and research methods

As previously mentioned Minkler (6) stresses that social class is one of the major factors leading to disease. Andes (31) lists some social class factors that may lead mothers to take better care of their children: Economic diversity, income disparity, social class fluidity, women's employment and autonomy. Along with social class comes the cultural background influencing children's health. Health choices and perceptions also depend on these backgrounds. Sousa et al (56) demonstrate that the cultural beliefs of popular health practices are in the minds and practices of some Brazilian children, particularly the younger, despite the lack of schools' incentive for them.

Policy is another unit of analysis, which is seldom mentioned. According to Steckler and Dawson (57) policy is often neglected by health educators despite the circumstance that many problems cannot be solved at the individual and community levels. These authors define as health education policy the one: "which primarily has as its focus the fostering and development of health education programs and the appropriate training and utilization of professional health education personnel and resources". Perhaps the fact that policy is overlooked contributes to the circumstance that health programs have received less attention in international projects towards development (58). A last point to be made is that policy needs to be seen as both a local and a global agenda. Thus, there is need for the family and the school community to take charge of policy needs and priorities and act towards social change at school, state and nation relations (59).

Another unit of analysis that is missing is more comparisons between research data and methods employed in health education research. Boruchovitch and Schall (60) discuss the reliability and validity of closed and open questionnaires used in a Brazilian health education research. This could be replicated in other research endeavors in this field. Thus, not only applicability of research methods could be discussed in greater depth but cross-cultural issues as well if similar researches are conducted in different cultural settings.

At present, there are usually major differences in conceptual frameworks, methodologies and samples among the studies. This hampers endeavors of comparing research methods and data. An exception is the study by Boruchovitch and Mednick (61) which compared the concepts Brazilian children had in regard to health and illness with those American children had reported in previous studies. Their findings evidenced that Brazilian children's concepts were remarkably more similar than different to the concepts of the American counterparts.

It is hoped that some new studies can be conducted in similar ways so that more comparisons can be made. For instance, studies in South Africa (62) and Finland (63) using the concept of "health promoting schools" could be compared. However, it must be stressed that similarity is not the only criterion to promote research revision in this area. Webb (64) studying systematic reviews of health promotion argues that this is an incipient area, which needs further refinement to increase its validity and credibility. This author suggests studies addressing: Rigorous observations, the quality of intervention, the quality of research design, the transparency and the detail description of the review process, and the subjectivity of the reviewers.

Conclusion

Knowledge production needs to be analyzed in terms of what it favors and what it neglects in any research area. Favoring research contents leads to different types of interventions and in turn, to different types of social practices. This research revision on the health education and health promotion for children leads to the conclusion that there are factors that influence children's behavior that have been more studied than others. It is suggested that new research endeavors also address the less studied factors. It is also suggested that research revisions become an essential tool aimed to reorient and transform research, particularly those which may have implications in the way that social practices are conducted.

In terms of the research focus given in health, the fact that there is more research and intervention at the individual level is problematic per se. It takes our attention away from the social problems. Steven and Davis (46) have even stated that: "The tendency to place the responsibility for the cause and cure of health problems on the individual has been described as one of the tyrannies of health promotion". Pilón (65) argues that the individual cannot be responsible alone for his/her lifestyle and behaviors that are generated in four dimensions: The individual subjectivity, the relationship network, the social (policies and service delivery), and the biophysics (the environment which includes our bodies). Moreover, Li and Wong (66) argued that although the literature on health intervention addresses both individual behavioral change and social change, it still remains to be understood how such concepts can be better translated into practices that involve the social, economical and political dimensions of health. In fact, a study conducted by Sousa (67) evinced that a health educational program in Brazil designed to empower women at the psychological, cognitive, physical, economical and political dimensions had more success in promoting changes related to the three first dimensions than the last two which are social dimensions.

And even examining the research undertaken at the individual level alone, there are more studies on the cognitive level.

This fact is revealing if one considers that the conceptualization of this level sometimes does not include the importance of the social interactions as much as do the affective influences and significant other's influences. Nevertheless, it cannot be enough emphasized that more research is needed at the individual level as well, since it is still not fully understood how children form health concepts and act accordingly. Kalnins and Love (8) address the lack of knowledge about children's thoughts on health, illness and their part in keeping healthy.

With the broader perspective of "health promoting schools" the programs geared towards children health attitudes and behaviors seem to have a better chance in achieving the goal of improving children's health. The studies on both health and education suggest that the social organization of a community is a key variable. Adding the factor of social organization leads to interesting conclusions. For instance, in regard to health in diverse social environments, Waitzkin and Britt (25) illustrate the exceptional case of Cuba where the populations' good health status is not due to wealth but to the social organization. This case implies that even with limited resources health education and health promotion can be implemented if an adequate social organization is sought. Furthermore, in respect to education in diverse social environments, Coleman and Hoffer (68) showed that private parochial high schools have better academic results than their public counterparts due to the greater social interactions within the religious community. In regard to health, Cassell (69) demonstrates that the social support in some organizations may exert a protective effect against the emergence of diseases.

Thus, considering the social organization as an important factor to promote health in a community, there should be efforts towards change in communities deprived of this organization. There seems to be a direct relationship between the social organization and how the social institutions - within deprived communities - perform. Wilson (70), when analyzing poor ghetto neighborhoods, described how the previous dislocation of the middle class families had a great impact on reducing the effectiveness and even in elimination some of the social institutions such as schools, churches, stores and so on. From the aforementioned, it is obvious that social organization depends on human and economic resources. For this reason, White and Welhage (71), studying the implementation of community collaboration initiatives, suggest that these to work should focus less on professional and programs and more on the transferring of human and material resources to the communities most in need.

Still, the present situation of the social institutions calls for change. For example, the background paper from the California State Department (72) testifies that: "Despite the fact that many students with special needs require and/or receive services from multiple agencies, educational programs are not usually well coordinated with other social and community services". Therefore, to improve health education and health promotion it is germane to think of broad organizational programs of change. Valla (73) proposes the strategy of social support groups not only as a health preventive strategy, but also as an empowerment strategy where social groups discuss their destiny and autonomy against the medical hegemony. He argues that the discussion of support groups must be integrated in: School curricula, political party' agendas, neighborhood associations, churches; and by health community agents.

It is clear that the task of improving children's health is not easy. It demands researching and intervening in all individual, cultural and social aspects that influence health. For that, it is necessary to promote health and educational policies that can address equity issues. Then, health education and health promotion will have more chances of accomplishing their universal roles. ■

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