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**Relations between family structure and students’ health-related attitudes and behaviors**

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Summary: This study examined the relations between family structure and students’ health related behaviors. Participants were 6,130 Greek students, age 11 to 16 years. They responded to questionnaires based on the Planned Behavior model assess attitudes, perceived behavioral control, intentions and behavior regarding healthy and unhealthy habits. Students who reported growing up with one or no parent adopted more unhealthy lifestyle attitudes and behaviors (smoking, drug use, violence, exercise, nutrition) than students growing up with both parents. The findings suggest that family structure is related to students’ healthy or unhealthy lifestyle indicating that in health education programs all members of the close environment within which children grows should be involved, especially for children who do not live with both parents. The absence of parents reduces the possibility of students participating in health-related activities and protecting their health.

Health promotion enables people to increase control over and improve their health, involving the practice of good health behaviors and the avoidance of those that compromise health. Healthy habits are firmly established behaviors and often performed automatically, without awareness relation to health. They usually develop in childhood and begin to stabilise around the age of 11 or 12 years. Researchers agree that many behavior patterns, which have significant implications for health over a lifetime are formed during childhood and adolescence (Stucky-Ropp & DiLorenzo, 1993; Taylor, 1999). Children’s attitudes and behaviors are believed to be more malleable than those of adults so successful attempts to influence health-related behaviors in positive ways early in school life may have significant long-term payoffs (Stucky-Ropp & DiLorenzo, 1993).
Children’s socialization into their families plays a major role in the adoption of health related behaviors. Family attitudes and behaviors involving risky activities are significant factors in shaping children’s healthy lifestyles. In considering the effects of family on adopting health related habits of their children, social psychologists have found that health habits are strongly related to early socialization, especially the influence of parents as role models. Wickrama, Lorenz, and Conger (1997) provided evidence for the influence of parental support on adolescent physical health, both directly and indirectly through the adolescents’ perceptions. They found a dynamic association between perceived parental support and physical health status from early through late adolescence. Parents instill (or not) certain habits, such as wearing seat belts, brushing teeth regularly, and eating breakfast every day, so they become automatic. Family and friends can provide informational or emotional support in case of stressful events. In addition to providing psychosocial benefits, social support also appears to lower the likelihood of illness (Taylor, 1999).

Research has indicated relations between parental attitudes and children’s behaviors (McMurray, Bradley, Harrell, Bernthal, Frauman, & Bandiwal, 1993). Family, friends, and workplace companions can all influence health-related behaviors, sometimes in a beneficial direction, other times in an adverse direction (Broman, 1993). Lau, Quadrel, and Hartman (1990) examined the sources and changes in young adults’ health beliefs and behaviors concerning drinking, diet, exercise, and wearing seat belts. Analyses yielded a correlation between parental and children’s health beliefs and behaviors. Wang, Fitzhugh, Westerfield, and Eddy (1995) examined the effect of families’ and peers’ smoking behavior among adolescents. Peers’ smoking behavior had the highest correlation with adolescents’ smoking across all ages from 14 to 18 years, while association with family were restricted only to the smoking of
older same-sex siblings. Finally, another study indicated that students low in hope and weak in attitudes and parental norms against smoking were more likely to increase their smoking, whereas those who perceived that fewer students smoked were less likely to increase their smoking (Carvajal, Wiatrek, Evans, Knee, & Nash, 2000).

According to the planned behavior model (Ajzen & Madden, 1986), intention of someone to participate in physical activity or health related behavior is influenced by perceived behavioral control, by their attitude toward the behavior, and perceptions of social pressure to perform the behavior by significant others, e.g., parents, friends, relatives, and schoolteachers. Godin and Shephard (1990) indicated that healthy adults thought their personal physicians wanted them to exercise and were motivated to comply with such advice. In studies with pupils age 9 to 12 years, influence of significant others was significant correlated with pupils’ intention to participate in sport and physical activities (Greenockle, Lee, & Lomax, 1990; Theodorakis, 1992). The influence of personal or social factors may depend largely on the age of the population. For younger population the social factor appears to be more important than for adults, at least for the context of physical activities (Theodorakis, 1992). In addition, association of family is only one of several influences on a child’s physical activity habits (Taylor, Baranowski, & Sallis, 1994). As children mature, particularly during adolescence, parental influences decrease.

The effect of social factors on physical activity in youth are documented in most studies because young people do much of their physical activity with teams, classes, and playgroups (Sallis & Owen, 1998). Parents can influence their children’s physical activity in a number of ways. The most studied social influence on young physical activity is parents’ activity habits (Taylor, et al., 1994). In a relevant study, Anderssen and Wold (1992), indicated that the physical activity of young adolescents
correlated with the physical activity and support of their parents and peers. Thus by serving as models and supporters, significant others appear to have an important role in promoting physical activity in young adolescents. Family and social environment are assumed to be important in the development of physical fitness habits in children. From this assumption, the absence of one or both parents in families would likely create a less secure, less constructive, and less productive atmosphere, and adjustment problems at home and in school. In turn, this would lead to an unstable, stressful life involving a host of health-risk factors including greater likelihood of substance abuse. As an example of this type of relationship, Friedman, Tucker, Schwartz, Martin, Tomlinson-Keasey, Wingard, and Criqui, (1995) reported association between childhood conscientiousness and retrospective self-reported family stress.

It has been suggested that the child needs to develop knowledge and skills in six important health-related areas, drug addiction, high risk sexual behavior, nutrition, exercise, personal hygiene, and knowledge of the body, notions of illness and disease, and experience with the medical people and systems (Rice, 1998). In a relevant study (Hars, Stacy, & DeMatteo, 1984) alcohol use, cigarette use, and hard drug use were significantly associated in a sample of high school and college students. The present study is a part of a greater project dealing with the relationships between healthy and unhealthy attitudes and behaviors among children and young adolescents. This paper focused only on the relationship of one social factor with children’s and young adolescent’s self reported health behaviors. Specifically, the study examined the relationship of family structure and health-related habits.

The planned behavior model was used as a framework to examine behaviors and attitudes toward healthy or unhealthy lifestyles. According to the theory, the main antecedent of behavior is the subject’s intention to perform the behavior. Intention is
based on a combination of three factors, attitudes toward behavior (positive or negative predisposition towards behavior), subjective norms (the social pressure to perform the behavior), and perceived behavioral control. Perceived behavioral control assumed to be an important factor that determines intention and behavior, especially for behaviors that are not under a person’s control, and express the easy or difficulty of performing a specific behavior (Ajzen & Madden, 1986). The hypothesis was that there should be significant relations between students who grow up with one or without parents and unhealthy attitudes and lifestyles than students growing up with their parents.

Method

Participants

The participants were 6,130 Greek students (59.2% boys and 40.8% girls). Their age ranged from 10 to 16 years (\(\bar{x}=13.6, SD=1.6\)). Schools were selected with a random stratified sampling method from different cities in Greece. Thirty primary schools, 33 junior high schools, and 28 senior high schools were included.

In their class environment, participants responded on questionnaires assessing attitudes, perceived behavioral control, and intentions towards a healthy lifestyle as well as self-reported behaviors. These questionnaires were constructed according to planned behavior theory (Ajzen, 2002) and were used also in relevant study with Greek populations (Theodorakis, Natsis, Papaioannou, & Goudas, 2003). The study was conducted with the permission of the Ministry of Education. All questionnaires completed in the classrooms and were anonymous.

Measures

Attitudes. - Attitudes toward the examined behaviors were assessed by six separate questions with the following format, “I think that smoking/exercising/using
drugs/eating fruits/taking part in violent behaviors/ during the next 12 months is...”

Participants responded in terms of four bipolar adjectives (good/bad, healthy/unhealthy, useful/of no use, pleasant/unpleasant) on 7-point scales (higher scores indicating favourable attitudes). Cronbach alpha for these scales varied from .82 to .90.

**Intentions.** - Three items were used to assess intentions for each behavior. In particular, these were “I intend/I will try/I am determined to smoke/exercise/take drugs/eat fruits/take part in violent behaviors during the next 12 months”. Responses were rating on a 7-point scale (1 = unlikely, 7 = likely). Cronbach alpha varied from .83 to .92.

**Perceived behavioral control.** - Perceived behavioral control was assessed using two items: (a) “For me to smoke/exercise/take drugs/eat fruits/take part in violent behaviors/ during the next 12 months, is...” for which responses were given on a 7-point scale (1 = difficult, 7 = easy) and (b) “If I want to, I can smoke/exercise/take drugs/eat fruits/take part in violent behaviors during the next 12 months”, for which responses also made on a 7-point scale (1 = totally disagree, 7 = totally agree). Cronbach alpha for these scales ranged from .72 to .86.

**Self-report health-related behaviors.** - Five behaviors were examined and were assessed by self-reported measures. The scales were complied with Ajzen’s (2002) guidelines for measurement of behavior. In particular, students were asked to indicate frequency of the examined behaviors on 7-point scales. For exercising, ‘how many times you exercised intensively during the last month’ (from 0, i.e., none to 6, i.e., more than 20 times). Participants were told that intensive exercise meant taking part in physical activities, which increased heart rate and sweating for more than 30 minutes, e.g., football, basketball, aerobics. For smoking and fruit consumption, ‘how
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many cigarettes/fruits you smoked/ate during the last week’ (from 0, i.e., none to 6, i.e., more than 20). For participating in violent acts, ‘how many times you got involved in violent acts during the last month’ (from 0, i.e., none to 6, i.e., more than 20 times). For using drugs, ‘how many times have you used drugs in the past’ (from 0, i.e., none, to 6, i.e., more than 20).

Family structure. - As the main aim was to examine the effect of family structure on students’ attitudes and behaviors, we did not measure the subjective norm variable according to planned behavior theory. A single question asked participants if in their house they lived with both of their parents (5), only with their mother (4), only with their father (3), with their grandparents (2), or alone (1). Because the vast majority (90%) of children lived with both parents, children were classified to form two groups, one including students living with both parents (n = 5,584) and one including students living with one or no parents (n = 546).

Results

Mean scores and standard deviations for all variables are displayed in Table 1. A series of t tests, were calculated to test for differences in attitudes, perceived behavioral control, intentions, and self-reported behavior between students living with one or no parent and students living with both parents. The results of these analyses and the mean scores for the two groups are also in Table 1. Effect sizes were measured, using d (Cohen, 1988).

The analyses indicated significant differences between the two groups for all examined behaviors. In particular, children living with both parents scored themselves higher on exercise than children living with one or no parents and on fruit consumption than children living with one or no parents. On the other hand, children living with one or no parents scored themselves higher on smoking than children living with both parents. Children living with one or no parents scored themselves higher on participating in violent incidents than children living with both parents.
Finally, children living with one or no parents scored themselves higher on drug use than children living with both parents.

Furthermore, t tests showed that regarding exercise and fruit consumption, children living with both parents scored higher than children living with one or no parent on the other variables (attitudes, perceive behavioral control, and intentions). Also, children living with one or no parents scored higher on the other variables (attitudes, perceived behavioral control, and intention for smoking, drug use, and violent incidents) than children living with both parents.

Discussion

Many factors affect the health-related decisions that people make. Students are heavily influenced by the health choices family members make and, particularly, the health behaviors modeled by their parents, while other family members, school staff, and community members all model health-related behaviors such as food selection and preparation, smoking, use of alcohol and drugs, stress management, and physical activity. These behaviors, whether healthful or less healthy, help to establish a climate that influences children’s health decisions (Birch, 1996).

In general, the results supported the main hypothesis of the study, that students who grow up with one or no parent adopt more unhealthy lifestyles than students who grow up with both their parents. This study indicated that students who lived with one or no parent could be defined as youth at risk. It is remarkable that these students seemed more tolerance of all unhealthy behaviors (smoking, participating in violent incidents, and using drugs) as examined and less favourable towards the healthy behaviors examined (exercising, fruit consumption), than students living with both parents. A relevant study (Wickrama, et al., 1997) indicated that supportive behaviors by parents serve to reduce risk for physical health problems across the adolescent years. They pointed out there is intriguing evidence that social support from one’s
parents and living in a stable and supportive environment as a child have long term effects on coping and on health.

A comprehensive approach to health promotion in youth might have school physical education as a primary component, but it would also include community organizations, families, health care settings, the media, and other appropriate channels. Physical education programs represent an important gateway for encouraging young people to develop lifelong habits. Finally, health-related interventions in schools should focus on eliminating or weakening those aspects of the environment that support or permit engagement in health-compromising behaviors, for example, access drugs, exposure to influential models, social support from peers and adults to engage in such behavior.

Reference


Table 1.
Descriptive Statistics and t ratios For Variables By Family Structure.

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