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A Content Analysis of Turkish Newspapers: Prevalence of Articles Containing Health Information Related to Physical Activity

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This study was retrospective in design and the purpose was to review health information related to PA (physical activity) in articles of Turkish newspapers. The search covered newspapers article printed between January 1, 2002 and December 31, 2004 in all Turkish newspapers that are accessible via the electronic newspaper database. Four daily Turkish newspapers were identified as having regularly archived documents on Web pages. The search was limited to articles that contained the phrase "physical activity" within them and resulted in 184 published articles being identified. A total of 165 (89.7%) articles presenting health information messages related with PA were selected for content analysis in that study. General health information about PA (35.9%), weight management (21.2%) and cardiovascular (11.9%) effects of the PA were the mostly frequently given as the main content of the articles. The target population in the articles included sedentary population (27.8%), individuals having specific disease (23.9%) and overweight people (16.9%). Twenty-eight of the articles (15.2%) contained information regarding the duration and frequency of the PA for the target population. Thirty articles (16.3%) contained information suggesting general exercises for muscle strength and flexibility. In the articles, the rate of health professions or academicians cited by the journalist was 27.7% in the articles. It was concluded that between 2002 and 2004, the published articles relating to PA in the Turkish new papers to promote the awareness of public had inadequate suggestions for promoting PA. The experts on PA, such as health professions and academicians, must be augmented and encouraged to educate and change health behaviors of the community through newspaper.

Keywords: PA (physical activity), health information, Turkish newspapers, content analysis

Introduction

Cross-sectional and epidemiological studies and controlled and experimental investigations have demonstrated that physically active adults, as contrasted with their sedentary counterparts, tend to develop and maintain higher levels of physical (King & Martin, 1998). Epidemiologic research has also demonstrated preventive effects of varying strengths related to PA (physical activity) and risk for several chronic diseases,

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including coronary heart disease, hypertension, non-insulin dependent diabetes mellutis, osteoporosis, colon cancer, anxiety and depression. Studies have also shown that low levels of habitual PA and low levels of physical fitness are associated with markedly increased all-cause mortality rates (Bauman, Bellew, Owen, & Vita, 2001; Pate et al., 1995; Shinada, Ariake, Abe, & Kawaguchi, 2002; Taylor, 1998). Therefore, successfully influencing PA levels in the whole population will require the development of effective interventions that can be provided to large numbers of people at low cost (Marcus et al., 1998).

Media plays an important role in informing the community about public health issues (Durrant, Wakefield, McLeod, Clegg-Smith, & Chapman, 2003; Finlay & Faulkner, 2005; Huhman, Potter, Wong, Banspach, Duke, & Heitzler, 2005; Marcus et al., 1998; Marshall, Leslie, Bauman, Marcus, & Owen, 2003; U.S. Department of Health and Human Services, 1996; Udell & Mehta, 2008). Additionally, mass media is an influential source of medical information and can shape health beliefs and prompt individual decision making (Bauman et al., 2001; Finlay & Faulkner, 2005; Marshall et al., 2003; U.S. Department of Health and Human services, 1996; Wallace & Ballard, 2003). Therefore, communication campaigns can be an important public health strategy to encourage individuals to become more active (Craig, Bauman, Gauvin, Robertson, & Murumets, 2009; Goenka, Prabhakaran, Ajay, & Reddy, 2009). Community-based PA programs that include aerobics, strength building and flexibility are just a few examples of PA information being promoted by mass media (King & Martin, 1998; U.S. Department of Health and Human Services, 1996). Despite of the appeal of reaching a greater number of individuals with less labor-intensive means and greater sophistication in technology for delivering the message, little is currently known about media-based methods in promoting higher levels of PA behavior among individuals, groups, communities or nations (Marcus et al., 1998).

However, sedentary lifestyles are still a significant public health problem in Turkey (Hacettepe Institute of Population Studies, 2008). Over the past three decades, the “healthy people” approach has been and continues to be a popular concept that is interested in lifestyle-related factors, such as smoking, dietary habits and alcohol intake, as well as regular PA among Turkish people. These trends have also affected the mass-media by increasing the frequency and number of articles related to healthy lifestyles in newspapers and magazines (Dizdar, 2002), with the majority of these articles being related to PA. Although the awareness of the Turkish population, regarding other health-related words, such as smoking, alcohol consumption and healthy nutrition, is high, the word “physical activity” was chosen for use in this study, in part, because mass media and municipalities are much more proactive with their efforts to promote PA behavior across Turkey since 2002. Therefore, the purpose of this study was to identify and review articles in daily Turkish newspapers from January 2002 to December 2004 that contained health information related to PA.

Methods

Turkish daily newspapers having a regularly updated Web page were included in this study. The newspapers not having regularly archived documents on Web pages were excluded from the study. A total of 246 articles from four newspapers were identified during the review period, but 62 articles were excluded from the study, because they did not included any health-related information about PA or had speculative information regarding PA (N = 62). As a result, 184 of the 246 articles were found to contain health-related about PA and therefore included in this study. The article search was conducted over a three-year period between January 1, 2002 and December 31, 2004. The key words used to help identify articles to analyze

included “PA”. The articles were identified by the words “physical activity” being in the title and/or discussed within the body of the articles.

All the articles for this research study were reviewed and coded by two authors at the same time. The authors agreed upon the codes to be used for the articles by reaching a consensus and it was decided that the reviewing questions coded would be used as follows:

(1) (a) What kind of PA was suggested in the article (general exercises for muscle strength and flexibility, walking, aerobic exercises, etc.)? and (b) Were there suggestions in the articles regarding the number of sessions per week, minutes per session, how many hours should spent per session doing PA?

(2) Had the epidemiologic result been given in the article (1 = Yes, 2 = No)?

(3) Was there any relationship between the topic and content of the article (1 = Yes, 2 = No)?

(4) What were the main topic(s) of the articles (general health, cardio-vascular, cancer, weight management, etc.)?

(4) Did the newspaper articles include some suggestions about PA? If the articles contained general suggestions then a “1” was used to record the data and a “2” was used to record specific suggestions mentioned in the articles.

The collected data were analyzed using the SPSS (Statistical Package for the Social Sciences) 14.0 software package. Absolute and relative frequency calculations for quantitative factors in the descriptive—Statistical analysis were used.

Results

One hundred eighty four articles (N = 184) containing information related to PA and with publication dates between 2002 and 2004 were reviewed from four Turkish newspapers and 165 (89.7%) of the articles had at least a health information message related to PA. The other 19 articles did not contain any health information message regarding PA or focus on the relationship between PA and health but did contain a health-related theme and identify a target population with health-related information.

General health information (35.9%), weight management (21.2%) and cardio-vascular (11.9%) effects of the PA were the mostly frequently identified topics of the articles. The target population in the articles included a sedentary population (27.8%), having specific disease individuals (23.9%) (heart disease, respiratory disease, diabetes mellitus, cancer, etc.) and overweight people (16.9%) (see Table 1).

Twenty-eight of the articles (15.2%) contained information regarding the duration and frequency of the PA or exercises for the target population. A total of 30 articles (16.3%) contained information about general exercises for muscle strength and flexibility (see Table 2).

One surprising result was that no references were used in 49 of the articles (26.6%), but different references sources were given (health professions, academicians, official health foundation, etc.) in 135 of the articles (73.4%). A total of 135 articles (73.4%) identified the relationship between the article topics and article content. In 51 articles (27.7%), the health related information messages were provided by health professionals (doctors, physical therapists, dieticians, etc.) (see Table 3).

Discussion and Conclusions

In Turkey, the lack of PA is a significant public health problem. Although the comprehensive survey regarding the percentage of Turkish population performing regular PA has not yet been completed, the last

Hacettepe University Institute of Population Studies (2009) revealed that the mean BMI (body mass index) of women aged between 15 and 49 years was 26.5, thus three out of five women aged 15 to 49 are categorized as overweight, with a BMI above 25.0 (Hacettepe Institute of Population Studies, 2008). In addition, the prevalence of hypertension, heart disease and respiratory disorders are an increasingly serious public health problem in Turkey (Akın, 2001; Hacettepe Institute of Population Studies, 2008). This might be one explanation for a sedentary lifestyle becoming an important public health problem for the Turkish population.

Table 1

The Percentage of Articles with a Health Information Message, Article's Theme and Target Population

Having health information message	*N*	Percentage (%)
Yes	165	89.7
No	19	10.3
Total	184	100.0
Article's theme		
General health	66	35.9
Cardio-vascular	22	11.9
Cancer	10	5.4
Weight management	39	21.2
Posture	12	6.5
Osteoporosis	4	2.3
Diabetes mellutis	9	4.9
Others	22	11.9
Total	184	100.0
Target Population in articles		
Having sedentary life style	51	27.8
Having specific diseases	44	23.9
Overweight people	31	16.9
Others	39	21.1
Missing	19	10.3
Total	184	100.0

Table 2

The Percentage of Articles Having Health Information on Intensity and Type of PA

Exercise or PA intensity	*N*	Percentage (%)
Time of the exercise (minutes/a session)	9	4.9
Frequency of the exercise (times/a week)	5	2.7
Time and frequency of the exercise	28	15.2
Time, frequency and a total duration of the exercise (during months)	13	7.1
Missing	129	70.1
Total	184	100.0
Type of exercise or PA		
General exercises for muscle strength and flexibility	30	16.3
Walking	15	8.2
Aerobic exercises	13	7.1
Yoga	7	3.8
Others	36	19.5
Missing	83	45.1
Total	184	100.0

Table 3

The Percentage of Articles Containing References, Suggestions and Relationship Between Topic and Content

Reference	*N*	Percentage (%)
Health professions	51	27.7
Academicians	38	20.7
Official health foundation	12	6.5
Translated news from newspaper or journals	16	8.7
Others	18	9.8
Missing	49	26.6
Total	184	100.0
The relationship between the topic and content		
Yes	135	73.4
No	49	26.6
Total	184	100.0
What kind of suggestions included		
General	103	56.0
Specific	64	34.8
Missing	17	9.2
Total	184	100.0

Public health policies now acknowledge the need to increase PA and recognize that inactivity is a major risk factor for illness (Bauman et al., 2001). Promoting 30 minutes of daily moderate-intensity PA is a major public health priority (Marcus et al., 1998; Pate et al., 1995; Williams et al., 2002). It is suggested that sedentary people embarking on a PA program start durations of moderate—intensity activity and gradually increase the duration and intensity (U.S. Department of Health and Human Services, 1996). However, the results of this study indicated that the PA rate suggested related to the kind of exercise types identified in the article (general exercises for muscle strength and flexibility, walking, etc.) only 54.9% of the time. In addition, the frequency suggested regarding the number of sessions per week and minutes per session was only 15.2%. There were 135 articles (73.4%) that identified both the relationship between the article topics and the article contents. It was concluded that the articles related to PA should have basic health information, such as duration and intensity of PA for promoting more active lifestyles in the community. The present study revealed that no references were used in 49 of the articles (26.6%). Only 48.4% of the articles were written by or contained statements provided by academicians and health professionals. This finding indicates an alarmingly low number articles authored by experts on PA. However, the articles analyzed in this study cited the experts on PA as those who are most influential for encouraging participation in regular PA that contributes to more active lifestyles by members of the community.

Large-scale community campaigns to promote PA and exercise have been conducted over the past three decades (Hillsdon, Cavill, Nanchahal, Diamond, & White, 2001; Marcus et al., 1998). For example, the “Participation” programs in Canada have demonstrated increasing awareness of, and interest in, exercising during the time their campaigns had been running. The “Health Style” program, a national media health promotion program in the United States, reported increases in awareness and intentions related to exercising. The “Life-being It” program in Australia found high levels of awareness of the campaign reports of increased participation in exercise and frequent endorsement of beliefs about the health benefits of exercising (Marcus et al., 1998). The study regarding the impact of an Australian mass media campaign that used television

advertising, advertising in the rural and metropolitan newspapers evaluated the effects of pre-/post- campaign among adults aged 25-60 years. Data were derived from self-reported responses to a random sample telephone survey. There were statistical changes in prompted awareness and knowledge of appropriate moderate-intensity activity and PA self-efficacy increased significantly (Bauman et al., 2001). The campaign (Active for Life) being HEA (Health Education Authority) of England aimed to promote moderate-intensity PA through social marketing tools (including television advertising, newspapers, community-based programs, etc.) in the period from 1996-1999. This longitudinal and prospective study suggested that an integrated campaign on PA can lead to increases in the proportion of participants who were knowledgeable about PA recommendations regarding moderate-intensity PA. The study showed that the campaign "Active for Life" can stimulate short-term population level behavior change. A broader campaign including policy and environmental changes was needed to support PA (Hillsdon, Cavill, Nanchahal, Diamond, & White, 2001). Furthermore, it was revealed that PA and exercise differs according to age, sex and socio-economic factors. Those who engage in exercise are more likely to be young, male and well-educated adults, members of higher socio-economic groups and those who have exercised in the past. Those least likely to exercise tend to be in lower socio-economic groups (Beaglehole & Bonita, 2004; Marcus et al., 1998; U.S. Department of Health and Human Services, 1996). Because of their low cost, print materials may be a better option for reaching disadvantaged or minority group members with much need health information. Additionally, written materials tend to include information that is culturally sensitive, uses appropriate language and includes the target culture's attitudes, beliefs, community leaders and written at a grade level that permits comprehension of the health messages for a less-educated group (Marcus et al., 1998; U.S. Department of Health and Human Services, 1996).

The results of the present study were obtained from daily newspapers having a circulation only in Turkey. Thus, the findings from this study cannot be generalized to other countries and are only representative of the regions in Turkey from which the four newspapers used in this study were published. However, basic calculations of the results revealed that when the 184 articles was divided by the four newspapers, it equaled 46 articles per newspaper over a three-year period, in other words, a total of 15.3 health-related articles a year per newspaper, which when extrapolated more equals one article containing health-related information about PA per newspaper every 23.8 days. This fact coupled with the very low number of health professionals writing the newspaper articles is very important. Thus, it reinforces the authors' claims of insufficient health information and inadequate suggestions for promoting PA in communities being reported by Turkish newspapers.

It can be suggested that PA campaigns identified in Turkish newspapers should emphasize the importance of being physically active and the need to reduce sedentary behaviors across Turkey. These campaigns can be improved and evaluated by health professionals with expertise in PA. Additionally, academicians and health professionals may want to reconsider working with the popular press to augment the health information related to PA and health behaviors in communities throughout Turkey. The authors recommend a follow-up content analysis be performed on daily Turkish newspapers from January 1, 2005 to the present to compare the similarities and differences of results of this initial study. Lastly, the authors believe if future prospective research regarding the Turkish national PA campaign is supported by municipalities (including environmental changes, using billboard and other print advertisements, etc.), heath professionals and academicians, it may increase the awareness and knowledge of PA among the Turkish population.

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