

Influence of Media on the Promotion of Exercise and Healthy Lifestyle: A Narrative Literature Review

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Abstract

Physical inactivity is a critical global public health issue, linked to obesity, cardiovascular diseases, and other non-communicable diseases. This study reviews literature on how media influences exercise promotion and healthy lifestyle behaviors, analyzing both traditional media (television, radio, print) and digital platforms (social media, mobile apps, online fitness communities). Findings reveal that traditional media effectively raises general awareness of exercise benefits through public health messaging, while digital media significantly impacts behavior change by offering interactive features like fitness tracking and peer support. Research shows that social media enhances health communication by improving accessibility and engagement, with studies indicating that frequent exposure to mass media health campaigns positively affects physical activity intentions. Mobile health applications and wearable technologies promote sustained exercise through self-monitoring and feedback, though negative aspects such as misinformation and unrealistic body image portrayals hinder health promotion efforts. In conclusion, digital and interactive media are more effective than traditional media in fostering sustained exercise activity, particularly among younger audiences. The study emphasizes that when grounded in accurate, evidence-based strategies, media can serve as a powerful mechanism for encouraging healthy lifestyles.

Keywords: Media, Exercise, Healthy Lifestyle, Unhealthy living

Introduction

Maintaining a healthy lifestyle and engaging in regular exercise can help lower the incidence of non-communicable diseases and enhance daily living, mental health, and overall wellbeing. Insufficient physical exercise has been reported to be responsible for around 3.2 million deaths and 32.1 million disability-adjusted life years (DALYs) each year (Ngoc, Lin, and Ahmed, 2020). A combination of at least four of the five major healthy lifestyle factors (not smoking, normal weight, healthy diet, appropriate exercise, and moderate alcohol drinking) has been linked to a 66% reduction in all-cause mortality risk when compared to no healthy lifestyle factor (Pan, Li, Franco, Yuan, Pan, and Koh, 2020). Routine, intrinsic motivation, biophysical challenges, psychosocial commitments, environmental factors, and resources have been reported to influence exercise and health (Brown, 2022).

The media is an effective tool for reaching, influencing, and changing exercise and other lifestyle behaviors, which has been shown to positively change physical activity and diet-related behaviors. (Goodyear, Armour, and Wood, 2019). There is an evidence that social media is being utilized in education, clinical, workplace, and community settings to influence physical activity and dietary behaviors in young people and adults across international contexts (Goodyear, Wood, Skinner, and Thompson, 2021). The advantages of media for exercise and a healthy lifestyle stem from the medium's broad reach and the opportunities for engagement, knowledge, and amusement. With an average daily usage of two hours and twenty-four minutes, there were 5.18 billion internet users worldwide as of April 2023, or 64.6 percent of the world's population. 4.8 billion of these people, or 59.9% of the global population, used social media. (<https://www.statista.com/statistics/617136/digital-population-worldwide/>). As a result, this review focuses on media, exercise, healthy lifestyle, and the influence of media on the promotion of exercise and healthy lifestyle.

Statement of the Problem

Physical inactivity and poor lifestyle choices continue to be major contributors to non-communicable diseases despite public health campaigns. Although a lot of media channels promote healthy living and physical activity, it's still unclear how effective they are in encouraging long-term behavioural change. The media may inadvertently spread misleading information, encourage sedentary lifestyles, and establish unrealistic standards for body image. While some research looks at the relationship between media and health, it usually doesn't fully analyse a variety of demographics and doesn't adequately address the bad parts, such inaccurate information and excessive screen time. This discrepancy highlights the necessity of a thorough examination of the advantages and disadvantages of media promotion of physical exercise and healthy lifestyles.

Research Questions

1. Which media outlets are often used to promote exercise and healthy living choices?
2. What good and negative effects may media exposure have on healthy living habits?

Methodology / Search Strategy

The design of this study was a narrative review. PubMed, Google Scholar, Scopus, and Web of Science were searched for relevant literature. "Healthy lifestyle promotion," "media campaigns and health behaviour," "media and exercise," "social media and physical activity," and "exercise promotion through media" were among the search terms used. Peer-reviewed journal publications in English that looked at the connection between media exposure and healthy lifestyle or exercise outcomes met the inclusion criteria. Excluded were studies that were only concerned with unrelated medical therapies or had no bearing on the promotion of physical activity. After duplicates were eliminated, 41 of the 68 papers that were initially found were examined, and 22 research were included in the final evaluation.

The Concept of Exercise and a Healthy Lifestyle

Exercise is refers to as organised, systematic, repeated, and intentional physical exercise done to enhance or preserve general health, well-being, and physical fitness. Weightlifting and sprinting are examples of anaerobic exercises, while walking, jogging, swimming, and cycling are examples of aerobic activities. Regular exercise greatly improves cardiovascular endurance, muscular strength, flexibility, balance, weight management, and mental health, depending on the intensity and frequency. Additionally, studies have demonstrated that regular exercise lowers the risk of long-term conditions such diabetes, obesity, high blood pressure, and cardiovascular problems (World Health Organization [WHO], 2022). A healthy lifestyle includes actions and routines that enhance social, mental, and physical well-being while lowering exposure to hazards and illnesses. These behaviours include engaging in regular physical exercise, eating a healthy, balanced diet, getting enough sleep, successfully managing stress, and abstaining from bad habits like smoking, binge drinking, and substance misuse. Living a healthy lifestyle increases lifespan, productivity, and emotional stability in addition to improving quality of life. Healthy lifestyle choices are crucial for reducing non-communicable illnesses and enhancing general public health outcomes, according to the World Health Organization (2022).

Overview of Exercise

Cardiovascular conditioning, strength and resistance training, and flexibility are all types of exercise. It is a common misconception that exercise simply entails physical activity such as walking, jogging, leaping, and swimming. Respected texts are, in fact, distinguished by their ambiguous titles (Qian, McDonough and Gao, 2020). Intentionally or unintentionally promote this assumption. Cycling, wheelchair racing, kayaking, rowing, skiing, and skating are examples of exercises that involve movement helped by machines or other technologies. In comparison to

resting rates of roughly 5 kJ min⁻¹ (83 W), comparable to an oxygen intake of 0.25 liters min⁻¹, energy is expended up to and beyond 120 kJ min⁻¹ (2 kW) during these activities, equivalent to an oxygen uptake of 6 liters min⁻¹.

The generally recognized definition of exercise is "planned, systematic, and repetitive body movement." (Qian, McDonough & Gao, 2020). However, there are some tasks that necessitate significant energy expenditures but involve little or no movement. The Crucifix and other gymnastics examples of quasi-static balance and suspension are examples. Isometric muscular activity in fixator and stabilizing muscles contributes to performance even in dynamic exercise like running and swimming (Gamble, 2022). Clearly, movement is not always required or involved in exercise, thus a universal definition must admit that movement is not always an outcome. It is worth noting at this point that the word "physical activity" is usually used as a catch-all term for exercise that covers activities of daily living arising from occupational tasks and recreational pursuits (Schaefer, 2021).

Classification of exercise

Exercise can also be classified based on the intensity of the exercise, i.e. light, moderate and vigorous exercise (Patel, et al., 2017). Furthermore, exercise can be classified into aerobic and anaerobic modes. All these classification of exercise aim at improving the health components of physical fitness which is the general fitness components needed for healthy living. The general fitness components include, cardiovascular endurance, muscular strength, muscular endurance, flexibility and balance.

Cardiovascular Endurance

Cardiovascular endurance measures how well the body performs during long periods of exercise. A person with high cardiovascular endurance can sustain high-intensity activities over an extended period without getting tired (Wahid, et al., 2016). Cardiovascular endurance can be improved through regular exercise such as resistance training, endurance training, and high-intensity interval training which led to improvements in cardiovascular endurance and muscular strength among adults who were aged 40–65 years old and who were not previously physically active (Katarzyna, et al., 2019).

Muscular Strength and Endurance

Muscular strength is defined as the ability of specific groups of muscle that produces max force to overcome a resistance within a single exertion (Guthold, et al., 2020). Muscular endurance on the other hand is defined as a group of muscles that can generate sub-maximal force over a sustain amount of time or through repeated movements (Guthold, et al., 2020). In other words, Muscular strength relates to your ability to lift or move objects. Muscular endurance refers to your ability to sustain activity for an extended period. Resistance training and weightlifting are forms of

exercise that can improve muscular strength and those that improve muscular endurance include cycling, swimming, long-distance running and circuit training (WHO, 2018).

Balance

Balance is the ability to stay upright or stay in control of body movement, and coordination is the ability to move two or more body parts under control, smoothly and efficiently (<https://www.performancepain.com>, 2020). There are two types of balance: static and dynamic. Static balance is maintaining equilibrium when stationary, while dynamic balance is maintaining equilibrium when moving. Balance relates to movement efficiency because it is an underlining requirement for general movement and non-movement to occur. For example, agility requires excellent dynamic balance in order to allow a person to move, and change direction in response to a stimulus (<https://www.performancepain.com>, 2020).

Flexibility

Flexibility can be defined as the range of motion in a joint or group of joints, or the ability to move joints effectively through a complete range of motion (Fogelholm, et al., 2006). The ability to be flexible is influenced by muscle elasticity and length, joint structure and the nervous system. Flexibility improves the range of movement around your joints, helping them to be less tight and stiff (Fogelholm, et al., 2006). To test for flexibility, few exercises have been identified to test range and suppleness. One of the most common experiments is to try and touch your toes while standing up, ensuring that both legs are straight. More scientific procedures include the cupper test, this process requires identifying one's lumbosacral junction with a pen, followed by leaning towards the waist with legs kept straight (Vaara, et al., 2012). The person must hold this position while the distance between their legs is once again measured to show the change in distance.

Classification of Exercise based on Type

Exercise are classified based on the level of intensity of the exercise, which is measured by metabolic equivalents (METs). There are three (3) intensity levels in exercise, namely; light exercises, moderate exercises and vigorous exercises.

Light exercise

Light exercise are exercise with 3.0 and below METs. It does not induce sweating unless it's hot or humid day and there is no obvious change in breathing patterns. Examples of light exercise include; standing light work (cooking, washing dishes) sleeping, writing, desk work, and typing, very slow walking (Patel, et al., 2017).

Moderate exercise

Moderate exercises with three (3) to six (6) METs. These type of exercise raises the heart rate, makes breathe faster and feel warm enough to start to sweat after performing the activity for

about 10 minutes³. Breathing becomes deeper and more frequent. Cycling, brisk walking (4 mph), badminton (recreational), tennis doubles, are examples of moderate exercise (Patel, et al., 2017).

Vigorous exercise

Vigorous exercise with six (6) and above METs. The immediate effect of these type of exercise will make the breathe hard, increase heart rate significantly and the bodily heat resulting to sweating after 3-5 minutes (Patel, et al., 2017). Breathing during vigorous exercise is deep, rapid and only short phrase conversation can take place during this kind of exercise. Examples of vigorous exercises include running, jogging, jogging in place, calisthenics (e. g. Push-ups, sit-ups, pull-ups, jumping jacks), heavy vigorous effort, rope jumping.

Aerobic exercise

Aerobic exercise refers to the type of exercise that involves repetitive, structured physical activity that requires the body's metabolic system to use oxygen to produce energy (Ansa, et al., 2021). It can be defined as a cardiovascular conditioning that strengthens the heart and lungs. The term aerobic literary means "with oxygen," which can translate to mean breathing controls the amount of oxygen that can be transported to the muscles to help them burn fuel and contract. Furthermore, aerobic exercise is considered the cornerstone of endurance training, characterized by moderate energy expenditure over a prolonged period of time (Ansa, et al., 2021). Aerobic power or endurance is measured by maximal Oxygen (VO_2 max), a person's maximal oxygen uptake (Patel, et al., 2017). As the name implies, muscle groups activated by this type of exercise rely on aerobic metabolism to extract energy in the form of adenosine triphosphate (ATP) from amino acids, carbohydrates and fatty acids (American College of Sports Medicine. ACSM's, 2013). Examples of aerobic exercises include: jogging, brisk walking, swimming, aerobic dancing, Zumba, stair climbing, elliptical training, rowing, Cross-Country run, cycling, jump ropes, rowing, hiking, playing tennis, and long slow distance training. The focus of this research is mixed aerobic exercise programme, this will incorporate various types of aerobic activities to form the exercise programme.

Anaerobic exercise

Anaerobic are exercises that require little or no oxygen supply during exercise. This includes strength and resistance training and are mainly use for developing muscular strength and tone muscles, as well as improve bone strength, balance, and coordination (Gellman and Turner, 2013). Anaerobic exercise is higher intensity exercise meaning that body burns glucose without using oxygen supplies. Anaerobic exercise is short in duration at high-intensity levels. Examples of anaerobic exercise include, push-ups, lunges, and bicep curls using dumbbells, weight training, eccentric training, Interval training, sprinting, and high- intensity interval training increase short-term muscle strength (Vega , Konhilas, Kelly and Leinwand, 2017).

Benefits of Exercise

Exercise involves engaging in physical activity and increasing the heart rate beyond resting levels. It is an important part of preserving physical and mental health. People may keep fit and healthy by exercising three to four times a week for at least 30 minutes (Qian, McDonough and Gao, 2020). It is not a secret that exercise is good for you, here are the benefits of exercise: Improved cardiovascular health, Lowers risk of heart disease, stroke, and diabetes, Helps manage weight, Reduced blood pressure, Enhanced aerobic fitness, Improved muscular strength and endurance, Improved joint flexibility and range of motion, Stress relief, Lowers risk of certain types of cancer and Control cholesterol.

Healthy Lifestyle

Health has been one of the concepts that have been heavily focused on since the beginning of humanity. Health can be considered as a continuum which covers different levels between healthy status at an optimum level and death (Phalank, 1991). According to the World Health Organization (1948), health is more than the status of not having a disease or disability but a status of being well in terms of mental, physical and social aspects. Being healthy, according to the same organization, is defined as “being aware of breathing, being able to meet the needs, being able to change the environment or handle the environment” (WHO, 2019). There are several factors involved in health and illness. Health is influenced by poor eating habits, not exercising enough, excessive stress, personal traits, behaviors and attitudes (Ebersole, et al, 1990). Unhealthy habits seen in adulthood are said to be strongly associated with an unhealthy life style (Krueger and Chang, 2008).

A healthy lifestyle is a way of living that lowers the risk of being seriously ill or dying early (WHO, 2019). Not all diseases are preventable, but a large proportion of death, particularly those from coronary heart disease and lung cancer, can be avoided. Scientific studies have identified certain types of behaviour that contribute to the development of non-communicable diseases and early death. Health is not just about avoiding disease. It is also about physical, mental and social wellbeing. When a healthy lifestyle is adopted, a more positive role model is provided for other people in the family, particularly children.

Media and Promotion

Media are the communication outlets or tools used to store and deliver information or data. The term refers to component of the mass media communication industry, such as print media, publishing, the news media, photography, cinema, broadcasting and advertising. Types of Media include; I. Print Media (Newspapers, Magazines) II. Broadcast Media (TV, Radio) III. Outdoor or Out of Home (OOH) Media IV. Internet V. Print Media (Goodyear, Armour, and Wood, 2019).

The media is an effective tool for reaching, influencing, and changing exercise and other lifestyle behaviors (Goodyear, Armour, and Wood, 2019). In physical activity promotion, mass media communication has strategic significance in influencing attitudes, societal norms, and personal behaviors, as well as advocating for policy change to promote favorable conditions for active living. To date, the success of these activities has been judged primarily in terms of their reach and impact as measured by a predefined set of psychosocial and behavioral indicators (Smith, Catriona and Bonfiglioli, 2015). The World Health Organization (WHO) 2019 Global Action Plan for Physical Activity acknowledged media as having the capacity to reach and target large audiences in order to increase exercise involvement (World Health Organization, 2019).

Furthermore, Health England's social marketing strategy emphasized the use of media to more effectively target various groups, engage communities, and support health-related behavior changes. There is also evidence that social media is being utilized in education, clinical, workplace, and community settings to influence physical activity and dietary behaviors in young people and adults across international contexts (Goodyear, Wood, Skinner, and Thompson, 2021). The advantages of media for exercise and a healthy lifestyle stem from the medium's broad reach and the opportunities for engagement, knowledge, and amusement. As of April 2023, there were about 5.18 billion internet users worldwide, which amounted to 64.6 percent of the global population with an average daily usage is 2 hours and 24 minutes. Of this total, 4.8 billion, or 59.9 percent of the world's population, were social media users. (<https://www.statista.com/statistics/617136/digital-population-worldwide/>).

The Role of Media in Health Promotion

The term "media" describes the range of communication channels that are used to reach a wide range of people with ideas, messages, and information. By raising awareness of illnesses, healthy lifestyle choices, and preventative healthcare measures, traditional media outlets including radio, television, newspapers, and magazines have long been crucial instruments for public health communication. Traditional media has made a substantial contribution to raising public awareness of physical exercise and good living choices through public service announcements, educational initiatives, and health campaigns. The rise of social networking sites and digital media has further changed health promotion by offering quick, easy, and engaging communication channels. Health practitioners, fitness gurus, organisations, and influencers may instantly share exercise-related material with audiences across the world on platforms like Facebook, Instagram, TikTok, YouTube, and X (previously Twitter). Through comments, live sessions, virtual fitness challenges, and online support groups, these platforms promote user interaction, which boosts motivation and physical activity participation (Moorhead et al., 2013). Through frequent exposure to compelling health messages, media campaigns impact public awareness, attitudes, motivation, and behavioural change. In order to inform people about the advantages of regular exercise, a healthy diet, stress reduction, and illness prevention, health communication initiatives

frequently make use of media. It has been demonstrated that frequent exposure to messages about exercise improves attitudes toward physical activity and promotes better lifestyle choices. Wakefield et al. (2010) state that when messages are targeted at certain demographics and are clear and consistent, mass media campaigns can successfully affect health habits. The public's access to health information and exercise communities has greatly increased in recent years because to wearable technology, mobile fitness applications, online fitness programs, fitness influencers, and health podcasts. Fitness trackers and workout planners are examples of mobile applications that assist people in keeping track of their physical activity, establishing fitness objectives, and sticking to exercise regimens. Similar to this, online fitness networks offer encouragement, accountability, and social support all of which are critical for maintaining healthy behaviours. Digital fitness platforms gained significance during and after the COVID-19 epidemic as many people depended on online wellness information and virtual exercise programs to be physically active. Despite these benefits, media-based health promotion also faces several challenges. The spread of misinformation, unrealistic body image portrayals, and unverified fitness advice on social media platforms may negatively affect users' physical and psychological well-being. Excessive screen time associated with digital media usage may also contribute to sedentary lifestyles, especially among young people. Therefore, while media remains a powerful tool for exercise promotion and healthy lifestyle education, there is a need for credible, evidence-based, and ethically responsible health communication practices.

The Influence of Media on the Promotion of Exercise and Healthy Lifestyle

In a paper published in 2021 under the title Social media usage informing behaviors related to physical exercise, diet, and quality of life during COVID-19: a mixed methods study, Goodyear VA, Boardley I, Chiou SY, Fenton SAM, Makopoulou K, Stathi A, Wallis GA, Veldhuijzen van Zanten JJCS, and Thompson JL.

During COVID-19, the researchers investigated how social media use influenced physical activity and diet-related behaviors, as well as self-perceived Quality of Life (QoL), and analyzed the contextual elements that drive social media use for health-related behavior change in various populations. The following explanatory sequential research design was used: (1) An online survey that assessed social media use in relation to physical activity levels, diet quality, and QoL ($n = 786$; Mage 45.1 ± 19.1 (range 16-88) years; Female = 69%); and (2) 20 purposeful focus groups ($n = 69$; Mage = 52.88 ± 18.45 years, Female $n = 68\%$) to understand the contextual factors that drive social media use for health-related behavior change.

There was descriptive and thematic analysis done. Participants in this study reported that social media aided in the self-management of physical activity, diet, and QoL behaviors by providing access to information to inform workouts and dietary quality, as well as opportunities for interaction with peers, family members, and within social groups. In a study on the Role of Mass

Media and Public Health Communications in the COVID-19 Pandemic. The researchers investigated the function of the media in the COVID-19 pandemic and its impact on the general public, reporting that the media plays a significant role in disseminating information, influencing public behavior, and limiting disease spread (Anwar, Malik, Raees, and Anwar, 2020).

In a study titled Social media, body image and food choices in healthy young adults: A mixed methods systematic review. The researchers sought to summarize the impact of engagement (sharing, commenting, and liking) and/or exposure to any image-related content (images, photos, and videos) via social media (SM) on body image (BI) (satisfaction or dissatisfaction) in young adults, as well as how exposure influences food choices (dieting, healthy eating, or overeating). SM is regarded as a vital platform for health practitioners to reach out to and connect with young adults in order to promote healthy behavior. According to this review, SM interaction and exposure to image-related information may have a negative impact on BI and food choice in healthy young adult populations who are susceptible to SM influence. Viewing idealised images of celebrities, peers, food, fitness, and fashion, as well as engaging in negative behaviours (body fat talk, reassurance seeking), are specific exposures that may increase these risks (Rounsefell, Gibson, McLean, Blair, Molenaar, Brennan, Truby, & McCaffrey, 2020).

A study by Sokolova and Perez (2021) examined the relationship between fitness video consumption from YouTube fitness celebrities and their followers' attitudes and intentions towards exercise. The findings suggest that watching fitness videos on YouTube can help people keep exercising, especially for women, by providing social support. However, the effect may be negligible or even detrimental for those who do not exercise, leading to sedentary behavior rather than physical exercise.

Young people and their interaction with health-related social media: fresh insights is the subject of a study. The researchers provide their most recent research on the social media usage of youth and the causes of their health-related behaviors. The majority of young people (53%) actively searched for (i.e., accessed) health-related content on social media, with the highest percentages (60%) on physical activity, (55%), on diet and nutrition, and (8%), on body image (Goodyear, V.A., Armour, and Wood, 2019).

Conclusion

This study summarised research on how conventional and digital media might encourage physical activity and good lifestyle choices. The results show that public knowledge, attitudes, and physical activity levels are significantly influenced by the media. Conventional media, including print, radio, and television, have been repeatedly found to be useful for spreading general health information and raising public awareness of the advantages of physical activity, especially through organised public health campaigns. Digital media platforms, however, provide

more participatory and behaviourally impactful mechanisms for encouraging persistent physical exercise, according to the review. Features including real-time feedback, peer support, personalised fitness content, and influencer-driven health message have been demonstrated to improve motivation on social media platforms, wearable technology, mobile fitness apps, and online fitness groups. Because of these interactive features, digital media is more successful than conventional media at encouraging long-term physical activity, particularly among teenagers and young adults. The review also found significant drawbacks with media-based health promotion, despite these favourable results. These include the dissemination of false information, exposure to unattainable body standards, variable online health material quality, and increased screen time, all of which can lead to sedentary behaviour. If these issues are not well controlled or directed by reliable health communication techniques, they might lower the overall efficacy of media initiatives.

The Review's Limitations

This review is constrained by the narrative review approach, which might lead to subjective interpretation in the study selection and analysis. The review excluded potentially pertinent research published in other languages since it mostly relied on English-language literature. Furthermore, it was challenging to directly compare the results of the evaluated research due to differences in methodology, demographic characteristics, and media platforms investigated. Additionally, the review did not involve empirical confirmation of the identified outcomes and instead concentrated mostly on secondary data sources.

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