Nordic walking and well-being of senior walkers
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Abstract:
Most adults living in western societies miss the recommended level of 30 minutes’ daily physical activity (British Heart Foundation, 2001; DH, 2011) which, when added to the fact that we are living longer, suggests that the associated risks present increasing concerns as we age. Walking is the most common daily physical activity. In addition, walking has known social benefits implicated in psychological wellbeing and quality of life; especially for older adults who prefer this type of lower intensity exercise. Nordic Walking is a form of exercise, based on marching technique. It makes an active use of specially designed poles. The growing interest in Nordic Walking endorsed researchers’ attention to activity and its effects on human body. However, none research findings have explained its benefits on mental well-being. The key focus of this research study is to investigate potential influence of Nordic Walking on mental well-being in later life. Using the socio-ecological approach this research explores well-being of elderly people in the North West England and provides insight into determinants contributing to regular participation in Nordic walking. This study draws on data from close-ended questionnaires to chosen Nordic walking groups in the North West England. Questionnaires measure mental well-being with use of Warwick Edinburgh Mental Wellbeing Scale (WEMWBS) and the socio-ecological factors influence regular participation in the activity. The outcome of this study will produce some new evidence on the potential influences of regular participation in Nordic walking on mental well-being of elderly people. The research will also independent and original contribution to knowledge based on its socio-ecological approach, as it will be the first to investigate the socio-ecological influences on regular participation in the Nordic walking that may affect the growing popularity of Nordic walking in the North West England.

Keywords:
mental well-being, Nordic walking, older people, socio-ecological perspective

1. Walking and Nordic walking as a Leisure Time Physical Activities

Walking is the most common form of physical activity and it is a part of our everyday lives. Moreover, walking is the most frequently reported daily activity among adults who meet recommendations for at least 30 minutes regular daily physical activity, which makes it a lifestyle activity (DoH, 2005, French et al., 2005 cited in: Darker, Larkin et al. 2007). Walking
as a means of transport is well-established in our history and culture, however the idea of leisure walking has rather a short history. The concept is associated with being active during free time to achieve or maintain mental and physical well-being (Shove and Pantzar, 2005) that is why leisure walking has received recent attention of scientists and healthcare based on its health benefits (Siegel et al., 1995; Blacklock et al., 2007; Darker et al., 2007; Caperchione et al., 2011). Leisure walking is proven to be preferred by adults across all socioeconomic groups (Merom et al., 2006; Kruger et al., 2008; Ramblers Association, 2010) and especially by older adults who enjoy this type of lower intensity exercise (Tully et al., 2005). Walking behaviour is a goal itself; ramblers and pilgrims enjoy the experience of moving outdoors in attractive environments to achieve healthy physical and spiritual sensations (Green, 2009). Through walking people create their own style and pace according to their social and cultural identities and positions or rankings in society (Kavanagh et al., 2008; Cerin et al., 2009; Green, 2009; Edensor 2010). Individual walking levels are influenced by many individual, social, cultural and environmental factors. (Darker and French, 2007; Granner et al., 2007; Cerin et al, 2009; Cerin et al, 2010). Special kind of leisure walking, among popular in England, rambling and hiking, is new type of walking activity called Nordic walking. Nordic Walking, also known as walking with poles, is a cross between classic-style cross-country skiers and fitness walking.

Similar to walking, Nordic Walking is easy to learn and can be practiced throughout the year. However in comparison to everyday walking, which uses only 70% of body muscles, Nordic Walking engages around 90% of body muscles and apart from strengthening only lower body it also improves the upper body performance such as mobility of neck and shoulders (Piech and Raczyńska 2010; Hagen et al. 2011). The origins of the activity date back to the 30s.
when in summer time the Finnish cross-country skiers used skiing poles to exercise and prepare for winter season. Since 1990s Nordic walking has spread to countries all over the world, becoming popular leisure activity. In the United Kingdom Nordic walking started to develop since 2001, when the first classes began in South West London. The growing popularity of activity in the country emerged the need for more instructors around the country. Therefore, in 2004 British branch of INWA was established and started instructor training courses. Nordic walking is a chameleon-like walking activity. It varies from being non-competitive to competitive, from individual to group walk. It can be practiced at three levels of advancement: health, which focuses on weight management and well-being by socializing with people; fitness, which also involves exercising with poles to improve endurance and strength; and sport which is competitive activity and focuses on individual performance during sports events such as Nordic walking marathons. Increasing interest in Nordic Walking as a leisure physical activity among people around the world proves its phenomenon, which in consequences endorsed researchers’ attention to activity and its effects on human body. The up-to date research findings proven Nordic walking to be safe and effective form of physical activity for elderly people (Sokeliene V. et al., 2011) and it is also introduced into various rehabilitation programs (Kocur et al., 2009; Antosiewicz, 2010; Morgulec-Adamowicz et al. 2011).

2. The Socio-Ecological Perspective

The concept of walking is associated with physical, social and cultural environment we live in which influence our decision to walk. Exploration of correlation between humans and their environments introduced the concept of social ecology in mid 1960s and early 1970s. Social ecology brought an attention to the social, institutional and cultural contexts of people-environment relations (Stokols 1996). It also integrated person-focused effort to modify persons’ health behaviour with environment-focused interventions to enhance their physical and social surroundings (Stokols 1996) and reduce serious and prevalent health problems (Sallis, Owen et al. 2008). Since 1970s there has been an increase interest in ecological perspectives due to their comprehensive approaches for understanding multiple and interacting determinants of health behaviours, including physical activity behaviour.
In the ecological model of physical activity, individual factors, such as age, sex, level of education, socio-economic status, employment status, self-efficiency, attitudes, behaviours, beliefs, motivation, personal barriers, skills, abilities, injuries or disabilities determine levels of physical activity. Applying the theoretical model to practice to change levels of physical activity at this stage of influence, practitioners need to implement education and mentoring programs to develop skills and change attitudes towards physical activity. In the model, second level of influences refers to social environment, which includes schools, workplaces, social support networks and authority of health professionals. In every community, individuals are surrounded by other individuals which form social groups such as family, friends, neighbours, class mates, work colleagues. Those small or large, formal or informal groups affect changes in attitudes towards physical activity. At this level, participation in physical activity may be influenced by community education, support groups, workplace incentives and social campaigns. The next level of influences in the socio-ecological model is physical environment, which consists of weather conditions, geographical features, aesthetics, safety, access to facilities such as parks, playgrounds, walking and cycling paths, land use, urban density and public transport. Stokols (1996) divides physical environment into natural and built. Both types of environment determine the amount and type of physical activity, however built environment, with its amenities, like built leisure and sport facilities, provides more opportunities for intervention in comparison to natural environment. At this level, engagement in physical activity may be improved by providing access to walking, cycling paths, build sport facilities and promoting community safety. The last level of influences on physical activity in the model is policy. Policy influence is the biggest layer as it takes, other layers: individual attitudes together with social and physical environment to create reliable and sound formal policies. Policies such as health polices, environmental policies, urban planning polices, education policies, and active transport policies are being
created and improved to positively influence participation in physical activity. In the United Kingdom, NHS and Department of Health (DoH) are responsible for public health policies. They collaborate with others in creating and managing many health programmes and movements on both national and local levels, such as “Walk England” and Walk4Life”. The socio-ecological model of physical activity is not only used for demonstrating the interventions for improving levels of physical activity. It provides the framework for understanding how those factors affect leisure walking behaviour as it offers a comprehensive theoretical explanation or dynamic interactions between personal, behavioural and environmental correlations (Alfonzo, 2005; Lee and Moudon, 2006).

3. The Research Study

As it was mentioned earlier, the great interest is paid to beneficial aspects of Nordic walking on the human body, however none of research findings have explained its benefits on mental well-being. Therefore, the main focus of the research is to discover the potential influences of regular participation in Nordic walking on mental well-being of in later life (Fig. 3). In order to complete the research study and answer the research questions, the appropriate and efficient research plan needs to be established and implemented. Evaluation of the existing literature on the socio-ecological perspective on physical activity, sociological perspective on walking activity as well as history of Nordic walking and its benefits on human body has helped to define the theoretical background of the research, general keys of terms and definitions. Exploration of the literature in the fields of health promotion, leisure time physical activity, walking behaviour and Nordic walking resulted in shaping concepts and directions of the research, establishing research objectives and discovering the existing gaps in knowledge.

Fig. 3. The research focus
Objective 1. Investigation of potential influences of regular participation in Nordic walking on mental well-being.

As noted before, physical activity, even gentle walking, improves overall health and well-being (Siegel, Brackbill et al. 1995, McEachan, Sutton et al. 2010, Hilland, Ridgers et al. 2011, Litt, Iannotti et al. 2011). Nordic walking is promoted by many as an exercise which benefits participants’ well-being and improves quality of life. There are number of papers on Nordic walking and its beneficial effects on human body (Šokelienė, Česnaitienė 2011, Kocur, Deskur-Śmielecka et al. 2009, Antosiewicz 2010, Morgulec-Adamowicz, Marszałek et al. 2011). However, as noticed by Morgulec Adamowicz (2011) there is no scientific research on Nordic walking effects on well-being. Therefore, the key focus of the research, which also will fill the gap in knowledge, is to discover the potential influences of regular participation in Nordic walking on mental well-being.

Objective 2. Identification of socio-ecological influences on regular participation in Nordic Walking.

The socio-ecological perspective on physical activity suggests that individual, social, physical and policy environments factors impact the ability or likelihood of individual regular participation in walking activity. All levels of influences interact with each other and contribute to frequency of various kinds of walking behaviours. Those influences are also used to reduce physical barriers to walking, develop social support network and to achieve positive changes in walking behaviours as an ultimate goal. The premises of the socio-ecological perspective provide powerful theoretical background for the research study as they offer an insight into personal, social and environmental determinants that contribute to the increase participation in Nordic walking in the United Kingdom.


England is a leader in participation of walking and number and length of walking paths (Shove, Pantzar 2005, Ramblers' Association 2010), which makes walking activity, such as rambling, trekking, hiking the most popular forms of leisure time physical activity. As it was mentioned before, Nordic walking is a particular type of walking. Similar to ordinary walking it is easy and gentle, however gives better whole body workout than walking. This is the reason why it has become popular leisure time activity around the world. Nordic walking may be practiced at three levels of advancement health, fitness and sport, which depend on fitness levels of the participants. The Nordic walking sessions may be tailored to the stamina and age of the participants which makes it a chameleon like activity (Shove, Pantzar 2005). Nevertheless, most people treat it as a gentle outdoor leisure exercise, what implies that Nordic walking is perfect activity for older people who are not interested or not able to perform more strenuous physical activities. The research aims to investigate what socio-demographic group is attracted to Nordic Walking and participates in the activity regularly in the North West England.

Objective 4. Exploring channels and ways Nordic Walking is promoted by organizations and Nordic walking leaders to general public.

The main organization which supports Nordic walking worldwide from 1990s is International Nordic Walking Federation (INWA). In Great Britain Nordic Walking has been present for over a decade. The organization that promotes activity, trains and supports Nordic walking
leaders is Nordic Walking UK. The organization holds information on Nordic walking leaders and groups around the country. However, the evidence from all over the world shows that it takes few years for Nordic walking to become popular and mainstream activity, if well promoted (Shove, Pantzar 2005) which may imply that Nordic walking is not effectively promoted in England. Shove (2005) claims that ineffective promotion is affected by weak collaboration between government, equipment producers, organizations and Nordic walking leaders. Therefore, the research will explore in what way Nordic walking is promoted by organizations to the general public in the North West England.

Objective 5. Further promotion of Nordic walking activity among general public in United Kingdom.

In England, walking, rambling and trekking have a long tradition and are well established in English culture. In comparison to these, Nordic walking is rather new leisure time activity and general public is rather not familiar with it, nonetheless popularity of Nordic walking has been growing steadily in the United Kingdom since introducing it in 2001. On the other hand, Shove and Pantzar (2005) claim that in range of well established leisure time activities there is no place for Nordic walking in England. Therefore, the aim of the research is to explore further ways of promoting the idea of Nordic walking among wider populations which will lead to general national familiarisation with the activity.

Further evaluation of the research study will bring independent and original contribution to existing knowledge in the subjects of Nordic walking, mental well-being and the socio-ecological perspective. The independent contribution to knowledge and the ultimate aim of the this study is to demonstrate potential influences of regular participation in Nordic walking on mental well-being. The original contribution is based on its socio-ecological approach. The research will be the first to investigate the socio-ecological influences on regular participation in the Nordic walking that may affect the growing popularity of Nordic walking in the North West England.

In order to reach research aims and contribute to knowledge, the appropriate and efficient research methodology needs to be applied. Therefore, the research study is considered to be approached with use of quantitative and qualitative research methods. It is designed around collecting, analyzing and interpreting data from two primary sources – close-ended questionnaires and semi-structured interviews to answer research questions and produce valid and reliable conclusions. A questionnaire is a descriptive method of collecting data. It establishes correlates between variables, discovers cause and effect relationship and allows to compare results between samples. A questionnaire-based study can process large number of information relatively quick and inexpensively (McQueen, Knussen 1999). An interview is a technique used to collect qualitative data by asking respondents to describe their experiences, talk about their opinions on a particular subject. Interviews are known to be representative, reliable, comparable and valid (McQueen, Knussen 1999).

In this research, data are generated form a pilot study and a main study. A pilot close-ended questionnaire has been conducted from April 2012 and finishes in July 2012. The main close-ended questionnaire together with semi-structured interviews will be conducted from September 2012. The overall time for conducting the research fieldwork will be over 9 months.
3.1 Pilot study

The research pilot study is based on conducting pilot close-ended questionnaires on a group of Nordic walkers (15-20 people) from “Active Living” Wigan, who have intermediate skills and perform the activity weekly in Three Sisters Park in Ashton-in-Makerfield. The walkers were invited to take part in the pilot study. All participants were provided with an information sheet, attached to questionnaires, and the opportunity to discuss any queries with the researcher. The three questionnaires have been distributed over 12 weeks, from April 2012 to July 2012. In the initial questionnaire, conducted on 27th April, participants answered questions on socio-economic characteristics (age, gender, marital status, working status, health status), Nordic walking practice and type of other physical activities practiced in free time. The mid-time survey, conducted on 8th June, gathered information about perceived changes in mood, health and physical performance since started taking part in Nordic walking sessions. The final survey, to be conducted on 20th July, will gather information on socio-ecological factors such as weather, location, access and aesthetics of venue, family, friends and community support which may influence the regular participation in Nordic walking. All three close-ended surveys have included the Short Warwick-Edinburgh Mental Well-being Scale (SWEMWBS) questions to measure potential changes in participants’ mental well-being. SWEMWBS is used with permission from designers. In the surveys there is only one open-ended question of the birth date, which also verifies the participants’ age. During analysis on the pilot study, the date of birth will be also used to marry questionnaires to respondents’ and individual potential changes in their mental well-being. The analysis and interpretation of the pilot study is scheduled to be carried out from July 2012 till September 2012.

The aim of pilot questionnaire is to test suitability of the SWEMWBS for the study purposes as well as improve design, wording and calculate the size of final sample.

3.2 Main study

The main study close-ended questions will be based on the pilot questionnaires. Data collected using close-ended questionnaires will be conducted from September 2012. The research participants will be chosen from Nordic walking groups with different levels of advancement, based in the North West England. The researcher will join the Nordic walking sessions to describe the aim of the study and invite walkers to participate. All participants will be provided with an information sheet, attached to questionnaires, and the opportunity to discuss any queries with the researcher. Walkers who will agree to participate will be given questionnaires to complete after Nordic walking sessions.

The questionnaire with close-ended questions will gather information about socio-demographic background, socio-ecological factors influence the regular participation in Nordic walking. The respondents will be also asked how they learnt about Nordic waling sessions, how long they walk and type of other walking behaviour they practice in free time.

The questionnaire will have the Warwick-Edinburgh Mental Well-being Scale (WEMWBS) questions to measure potential changes in walkers’ mental well-being. The main study will also employ individual semi-structured interviews with Nordic walking teachers and instructors. All interviewees will be provided with a copy of semi-structured questions and an information sheet, few days before the interview date to be familiar with research
purposes and questions. The interviews will be held in a setting and time convenient for participants. The interviews will be no longer than one hour and will be recorded. The semi-structured questions will explore beginnings and process of establishing regular group Nordic walking sessions in the region, statistical information on number of Nordic walkers, ways and means the activity is promoted to the general public and socio-ecological factors which may affect Nordic Walking popularity in the North West England. The aim of the interviews is to gather important information about history and growing popularity of Nordic walking in the North West England.

In undertaking of the research study, there is a number of ethical considerations. The most important ones are voluntary participation, participations’ consent and their anonymity. To ensure those requirements are fulfilled, the University Code of Practice on Ethical Standards for Research Involving Human Participants has been implemented. Both, pilot and main studies are designed to inform all participants of the general aims of the research, voluntary participation and anonymity of all participants. Moreover, the researcher contact details are provided in case of request of withdrawal from the study or notifying the participants about the process of data collection and the results. In addition, all data are stored in secure manner, according to the Data Protection Act 1998. In case of using Warwick-Edinburgh Mental Well-Being Scale (WEMWBS) in the pilot questionnaire, the authorization has been sought and granted after filling the “Initial information sheet for users of WEMWBS”. Having followed the University Code of Practice on Ethical Standards for Research Involving Human Participants, the fully designed pilot questionnaire with participation information sheet together with completed RE1 form was approved by the Centre Research Ethics Committee.

4. Conclusion

The concept of walking is associated with physical, social and cultural environment we live in which influence our decision to walk. For the research study the socio-ecological approach is adopted, which suggests that individual, social and environmental influences contribute to walking behaviour and reduce physical barriers to walking, develop social support network and to achieve positive changes in walking. The socio-ecological perspective as the theoretical framework for the research investigation provides insight into determinants contributing to regular participation in Nordic walking and explores potential changes in mental well-being of elderly people in the North West England. Following the research work plan thoroughly, together with choosing the appropriate research tools, this study will not only reach the research objectives, but it will also produce some new evidence on the potential influences of regular participation in Nordic walking on mental well-being.
References:


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