Annali Online dell'Università di Ferrara
Sezione di Didattica e della Formazione docente
Vol. 10, n. 9, 2015. ISSN 2038-1034

Current immigration to Europe from North Africa. Health and physical activity

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Abstract – Immigration to Europe - especially from neighbouring North Africa - is a consistent phenomenon with social and health-related implications. Even if in many cases immigrants come from lower-income countries, their health status is better than that of European-born citizens at immigration time, given their younger age. Still, the adoption of a Western life style, with increased caloric intake and reduced physical activity, may soon lead to a deterioration of individual health. European-born individuals engage more often in leisure-time physical activity than immigrants (especially women) and follow a more healthy diet. Thus, obesity, cardiovascular diseases and diabetes may have a higher prevalence in accustomed immigrants.

Abstract – L'immigrazione in Europa - in particolare dalla vicina Africa del Nord - è ormai divenuto un fenomeno consistente con implicazioni sociali e correlate alla salute. Anche se in molti casi gli immigrati provengono da paesi in via di sviluppo, il loro stato di salute al momento del loro arrivo è migliore di quello dei cittadini nati in Europa, principalmente a motivo della loro giovane età. Tuttavia, l'adozione di uno stile di vita occidentale, con un maggiore apporto calorico e una ridotta attività fisica, può portare presto ad un peggioramento della salute individuale. La popolazione di origine europea pratica più spesso attività fisica nel tempo libero rispetto agli immigrati (soprattutto se di sesso femminile) e segue una dieta più sana. Di conseguenza, l'obesità, le malattie cardiovascolari e il diabete possono avere una più alta incidenza negli immigrati adattati al nuovo ambiente.

1.Introduction

Immigration to the European Community from non-EU countries is a

consistent phenomenon, involving more than 1,000,000 people every year. European countries with the largest number of immigrants are Germany (22.9% on the total population), Italy (15.2%), Spain (14.8%), France (13.2%) and UK (12.3%) (Eurostat, 2014). The historical "pull" effect of the EU has determined a high net migration rate, which contributes to increase its population. Immigrants residing in the EU in 2013 exceeded 20.000.000 individuals, corresponding to roughly 4% of the EU total population (EuroStat, 2014). The 78% of non-EU nationals residing in Europe are of working age (15-64 years). Most of them come from China and India, the two most populated countries in the world, and from North African (NA) countries – Morocco in particular - close to the southern border of the EU.

2. Health of North African immigrants in Europe

Studies on health of immigrants in Europe highlighted a different situation in comparison to the non-migrant population. According to the so-called "healthy migrant effect", immigrants are initially healthier than European natives, probably because the migration process involves mostly healthy and young people. Nonetheless, an Italian longitudinal study on NA immigrants (Moroccans, mainly, and Tunisians) found an increasing trend in nutritional disorders, psycho-social stress and blood pressure over a 10-year-period, underlining the risk of a transition to poor health (Toselli et al, 2008a).

Although the protective effect associated with recent immigration was conferred to first generation immigrants, this advantage was almost lost among second generation immigrants. In the process of accustomization to a new country, exposure to poor lifestyle habits in the host communities may lead to the adoption of unhealthy lifestyle habits.

A recent study (Rechel et al, 2013) reported that diabetes, some communicable diseases, maternal and child health problems, occupational health hazards, injuries, and poor mental health are more frequent among immigrants than native Europeans, owing to different risk factors and different patterns of disease in their countries of origin, in addition to poor living conditions in their new country, precarious and dangerous jobs, and the psychological distress that can be associated with various causes and processes of migration.

Higher rates of hypertension and diabetes - and consequent high mortality and stroke incidence - were observed in Africans compared to migrants of different origin (Gushulak and MacPherson, 2006). Many other factors, involving health risks, were mentioned, such as language skills,

behavioral and cultural practices (use of tobacco and alcohol), dietary practices and physical exercise. The latter factor will be analyzed in more detail in the next section.

Gilbert and Khokhar (2008) reported that diet of people changes after immigration to Europe towards consumption of less-healthy food components, such as fat, sugar and salt, and energy-dense diets. These new eating habits combined with reduced physical activity are likely to be the main causes of increased risk of chronic diseases, and are significant features of adaptation to Western lifestyle. Among ethnic minority groups of NA origin, Moroccan group is the largest one in several European countries. Dietary habits of Moroccan immigrants in Spain differed from those of Spain population depending on the time of acculturation (Montoya et al, 2001). In France, 18-year-old North Africans had a lower consumption of dairy products and meat and a higher consumption of starchy food and legumes in comparison to French natives (Wanner et al, 1995).

Prevalence of cardiovascular diseases among Moroccan immigrants did not significantly differ from ethnic Dutch population (Ujcic-Voortman et al, 2012), although obesity and diabetes had higher prevalence among Moroccan immigrants.

An Italian study found that NA ethnic groups had a high prevalence of obesity, compared to both Italian natives and NA population in the countries of origin (Gualdi-Russo et al, 2009). Fat percentage was higher in Moroccans and Tunisians compared to other minority groups (Toselli et al, 2008b). With regard to blood indicators, Moroccan ethnic group showed a higher number of subjects (especially females) above cut-off values for glycaemia and triglycerides (Gualdi-Russo et al, 2014). Nevertheless the prevalence rates for hypertension of this ethnic group was relatively low compared to native-born and other migrant ethnic groups (Agyemang et al, 2006; Gualdi-Russo et al, 2009).

3. Physical activity of NA immigrants in Europe

The most recent guidelines on recommended levels of physical activity (PA) for children and young people (5-18 years) indicate that they should engage in moderate-to-vigorous intensity PA for at least 60 minutes and up to several hours every day, and they should minimize the amount of time being sedentary. For adults, doing 30 minutes of at least moderate intensity PA on at least 5 days a week helps to prevent and manage over 20 chronic conditions, including coronary heart disease, stroke, type 2 diabetes, cancer, obesity, mental health problems and musculoskeletal conditions (Department of Health, Physical Activity, Health Improvement and

Protection, 2011). According to a recent review (Reimers et al, 2012) being physically active appears to be associated with a higher life expectancy. In particular nonsmoking, normal weight, and physically fit men live on average 12 years longer than smoking, overweight, and physically unfit control subjects.

Low level of PA or physical inactivity are a serious public health problem in children and adults, being associated with risk factors for chronic diseases (Figure 1).

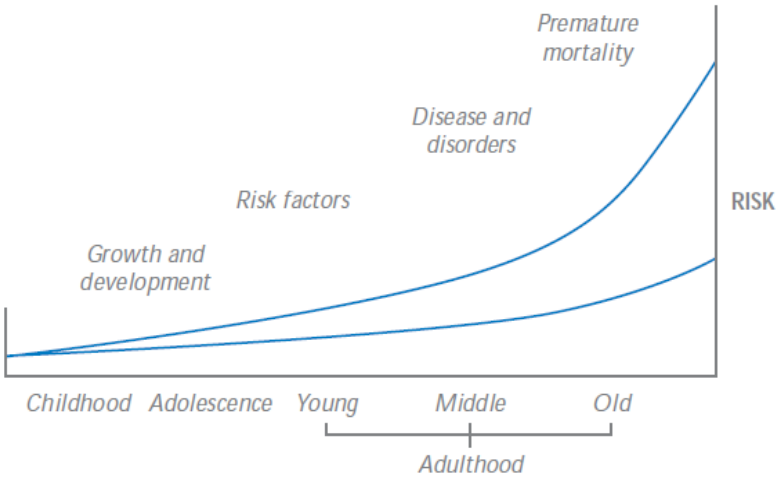

Figure 1 - Physical activity and disease/mortality risk in a lifetime perspective: the lower line shows the hypothetical risk in active subjects, the upper line in inactive subjects (from Department of Health, 2004).

Women are more inactive than men, doing less than 30 minutes of moderate intensity activity/day on five or less days a week (Department of Health, 2000; Department of Health, 2004). Regular PA has consistently been identified as an essential behavior for achieving a good later life. An active lifestyle is particularly important in older people for improving mobility, emotional and mental well-being (Stathi et al, 2002; Colcombe and Kramer, 2003; Ku et al, 2007; Netz et al, 2011).

Physical inactivity is the fourth leading risk factor for global mortality (accounting for 6% of deaths globally). Overweight and obesity are responsible for 5% of global mortality. (WHO, 2009).

The strength of the relationship between PA and health outcomes persists throughout people's lives, highlighting the potential health gains

that could be achieved if more people become more active throughout their lifetime.

The behavior of immigrants is influenced by the environment and culture of host country (Landrine and Klonoff, 2004). Health-related behaviors of migrants, such as dietary patterns or PA in particular, are likely to be affected by the process of acculturation. According to literature, there is a lower prevalence of PA among Hispanic, African and Asian immigrants in United States (Singh and Siahpush, 2002; Abraido-Lanza et al, 2005; Kagotho, 2011; Joshi et al, 2014). Tremblay et al. (2006) found in Canada that recent immigrants (16%) were less active than immigrants (20%) who were less active than non-immigrants (24%) and, in general, female immigrants in all ethnic groups were less active than male immigrants regardless of time since immigration.

Despite the increasing number of immigrants in European countries, there are few studies that have investigated the level of PA in individuals of different ethnic groups according to gender, age, and socio-demographic factors.

Cornelisse-Vermaat et al (2007) found that immigrants in The Netherlands participated in sports less frequently than native Dutch; in particular 47.6% of Moroccan immigrants were inactive, 19.8% of them practiced PA ≤1 time/week, 18.3% of them 2 to 3 times per week and 14.3% >3 times per week.

In the study of Mejean et al (2007) an active lifestyle was more prevalent among Tunisian migrant men than among local-born French and non-migrant Tunisians (53.1%, 43.5% and 32% respectively), but the contrary in the prevalence of vigorous activity (10.2%; 21.1% and 12.9% respectively).

In a recent study on immigrants and Swedish-born individuals, Carlsson et al (2014) found physical inactivity to be more common in immigrant groups compared to Swedish-born (in particular a prevalence of 21% in physically active women from the “rest of the world” group and of 29% in physically active men from the “rest of the world” group).

A similar situation was observed in NA children and adolescents living as immigrants in Europe. In Norway (Kumar et al, 2004), Sweden (Khalin et al, 2009), Germany (Lämmle et al, 2012) and Denmark (Nielsen et al, 2013) children and adolescents with a foreign background were less physically active than non-immigrant subjects. In a recent study by Toselli et al (2014) PA was significantly higher in Italian native preschool children than in immigrants (38.6% vs 29.0% in males and 50.2% vs 40.6% in females).

Limited PA among adult migrants and minority groups compared to the

native population may be the result of attitudes regarding the importance of PA: some minority groups consider PA as a "waste of time" (Im et al, 2010) or as a "luxury" (Im et al, 2012). In a Western context, Moroccan migrant women in The Netherlands attributed their lower levels of PA to changes in lifestyle due to migration (Nicolau et al, 2012). With migration, individuals originating from low to middle income countries come into contact with the obesogenic environment which is typical of Western European societies and characterized by a high availability of energy dense foods as well as limited opportunities for PA. In some cultures it may not be customary to engage in leisure time PA, therefore migrants originating from these cultures, particularly women, would be less likely to participate in PA that is not related to the tasks of daily living. Finally, migrants that originate from cultures that tend to value large body sizes may be less motivated to engage in weight controlling activities.

4. Conclusions

Migration is a complex and dynamic process that can affect the health of migrants, positively or negatively; as the number of immigrants is increasing, their health has therefore been regarded as a public health challenge in several countries.

As there is a clear causal relationship between the amount of PA and all-cause mortality, it is important to increase the physical activity level of children, adolescents and adults who are not meeting the recommendations, in particular of those who are significantly inactive in order to produce the greatest reduction in chronic diseases.

Health-related behaviours, such as dietary patterns and PA, are likely to be affected by the process of acculturation in migrants. Strategies to promote PA and prevent physical inactivity should consider both ethnicity and time since immigration.

Acknowledgements: The work was supported by the European Union, EU FP7/2007-2013 grant 260715.

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