EDITORIAL COMMENT

The phenomenon of migration and cardiovascular risk factors

O fenómeno migratório e fatores de risco cardiovascular

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Migration of human populations is universal and continues to
the present day.1 Migrations are frequently associated with
problems of adaptation, which in turn can lead to increased
cardiovascular risk.

Most developing countries do not have reliable record-
ing systems that enable them to assess mortality rates or
to quantify cardiovascular risk factors in the real world.
Attempts to estimate the true burden of cardiovascular dis-
ease (CVD) in these countries, as well as to make projections
of future trends, must therefore be based on local registries
or on inferences using suitable data from other countries in
the region.2

However, somewhat paradoxically, the burden of CVD in
individuals of African descent living in the US and, to a lesser
extent, in the Caribbean and the UK, has been the subject
of considerable research over the last fifty years. This has
shown, for example, that rates of hypertension are approx-
imately 50% higher in African-Americans than in other races
and, as a result, they suffer significantly increased mortality
from stroke.3,4

There have been studies comparing hypertension in
African and European populations,5 while others have
demonstrated increased cardiovascular risk in immigrants to
Europe.6,7 However, a search of the international literature
gives the impression that this subject has been addressed
more thoroughly in African-American and African groups1,2
than in European populations.

The study by Tavares et al. in this issue of the Journal8
provides an original and pioneering analysis of the cardiovas-
cular risk profile and social integration of university students
from an African country (Cape Verde) studying in Portugal,
comparing them with Caucasian Portuguese students study-
ing in Portugal and Cape Verdean students studying in their
home country.

The study found signs of poor adaptation among the Cape
Verdean students living in Portugal. They took less exercise,
were more likely to abuse drugs, more frequently reported
difficulties with integration, and showed more signs of finan-
cial difficulties than the other two groups.

The study also revealed that, even after only a short
time residing as immigrants in Portugal, the African stu-
dents already showed significant changes in cardiovascular
risk profile, such as higher blood pressure, body weight, salt
intake, aortic stiffness and albuminuria, compared to indi-
viduals born and residing in Portugal, and increases in salt
intake, body weight and albuminuria compared to individ-
uals born and residing in Cape Verde.

As the authors point out, the increased cardiovascular
risk found in this population could be related to difficulties
adapting to the new country and the adoption of less healthy

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lifestyles, which may justify early preventive measures to
prevent or mitigate this increased risk.

The study has two main points of interest. Firstly, it
demonstrates increased cardiovascular risk in a young pop-
ulation, with a life expectancy of several decades; since it
is not easy to change behaviors, it can be assumed that the
 persistence of these risk factors over time will compromise
their cardiovascular health years later, which is a concern for
 society. Secondly, the high level of education of university
students might have been expected to act as a protective
factor against the negative effects of a change in environ-
ment. However, this was not the case, and in fact the authors
detected significant changes in the risk profile of this pop-
ulation after only a short stay in a foreign country.

Various social, cultural and economic factors are known
to contribute to the development and persistence of health-
related behavioral patterns, and to the ways in which they
change. In this regard, adopting healthy behaviors and
lifestyles has been shown to reduce the risk of CVD, for
which awareness of modifiable risk factors is important, but
this was not specifically addressed in the study by Tavares
et al. Knowledge of cardiovascular risk factors appears to
be central to changing behavior: models of health behavior
show that awareness of the negative consequences of a par-
ticular behavior is a necessary (though not always sufficient)
condition for changing that behavior.

This aspect of patients’ knowledge should be taken into
account when designing measures for the control of cardio-
vascular risk factors.

Overall, this work undoubtedly helps to deepen under-
standing of cardiovascular risk in migrants in Europe and
opens the way for other studies in this area.

Conflicts of interest

The author has no conflicts of interest to declare.

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