

Intention behavior relationship based on epidemiological indices: An application to physical activity

Gaston Godin¹, Mark Conner²

¹University of Laval, QUEBEC CITY, Canada

²University of Leeds, LEEDS, UK

Purpose: Although R² (variance explained) provides a useful index of the effect size, it fails to provide further insights about the nature of the relationship between intention and behavior. In this regard, the additional use of epidemiological indices could be useful. This paper examined the usefulness of epidemiological indices in furthering the understanding of the intention-behavior relationship in the field of physical activity.

Methods: Six prospective data sets of physical activity were used. These were studies realized in UK and Canada in various settings (school, workplace) among different segments of the population (students, employees). In each of these studies, intention at baseline and behavior at follow-up were both assessed by means of questionnaires. Intention and behavior were dichotomized to create 2 x 2 tables; this procedure allowed computing four standard epidemiological indices: sensitivity, specificity, positive predictive value (PV+), and negative predictive value (PV-)

Results: The overall prevalence of active individuals was 32.8%. The proportion of those who had a positive intention but did not act (False Positive) was 33.9% of the sample whereas the proportion of those who had a negative intention but acted (False Negative) was 4.5%. Moreover, among the inactive individuals an equal proportion reported either a positive or a negative intention. Sensitivity was 86.3% which reflects the high sensitivity of intention for exercising, that is, active individuals were very likely to hold a positive intention. Specificity was 49.5% which suggests that a significant number of inactive individuals held a positive intention. With respect to predictive values, a low intention was a very good predictor of being inactive (PV- = 88.1%) whereas a positive intention was a moderate predictor of being active (PV+ = 45.5%).

Conclusion: These results indicate that intention is a moderate predictor of behavior and that the gap between intention and behavior is caused by high intenders not taking action. Thus, health promotion programs would benefit from not only focusing on increasing the intentions of low intenders but also from targeting factors that moderate the intention-behavior relationship.

P-149

Determinants of Physical Activity in Adult Population of the City of Monterrey, N. L., Mexico

Oswaldo Ceballos Gurrola, Javier Alvarez Bermudez, Rosa Elena Medina Rodríguez

University Autonoma de Nuevo Leon, SAN NICOLAS DE LOS GARZA, N. L., Mexico

Purpose:

Know the main barriers for the practice of physical exercise and sports in the adult population of the City of Monterrey, N. L. Mexico.

Methods:

The target population consisted of adults from the City of Monterrey, people 18 years old or older (n = 601). An ad-hoc questionnaire was created for this research; it is known as "Survey on Physical Activity and Quality of Life." The survey consists of 64 questions used to examine 11 dimensions. However, for this work we only used those directly related to the purpose of this study.

Results:

The majority of interviewees were women (52.4%); men represented 47.6%. The largest group was that of housewives (38.27%), followed by those who have another type of job (14.48%), private business employees (10.82%), and retirees (9.98%).

There is a contradiction in the sample under study concerning the attitudes toward exercise. Most people consider that doing exercise is very important; however, almost one half of the sample does not do any exercise. These data show the limited sports culture in the community (Alvarez, 2004; Ceballos, 2005). The fact that most people do exercise primarily in public parks, in spite of being scarce and with little infrastructure, shows how beneficial it would be to create and maintain a larger number of public squares and parks.

Conclusion:

The results obtained make it obvious that there is a widespread opinion regarding the scarcity of facilities, of how inadequate the existing ones are, and the extensive lack of security in public places for the practice of physical activities. Even though doing exercise is considered important, almost half of the population who were the object of this study do not do any exercise.

References:

1. Alvarez, J. (2004). Los jóvenes y sus hábitos de salud. Una investigación psicológica e intervención educativa [Young People and Their Health Habits. A Psychological Research and Educational Intervention]. Trillas. Mexico.
2. Ceballos, O. Serrano, E., Sanchez, E., Zaragoza, J. (2005). Gasto energético en escolares adolescentes de la ciudad de Monterrey, N. L. Mexico [Energy Consumption in Adolescent Students of the City of Monterrey, N.L., Mexico]. RESPYN. 6 (3) 1-8.



P-149

Determinants of Physical Activity in Adult Population of the City of Monterrey, N. L., Mexico

*Oswaldo Ceballos Gurrola, Javier Alvarez Bermudez, Rosa Elena Medina Rodríguez
University Autonoma de Nuevo Leon, SAN NICOLAS DE LOS GARZA, N. L., Mexico*

Purpose:

Know the main barriers for the practice of physical exercise and sports in the adult population of the City of Monterrey, N. L. Mexico.

Methods:

The target population consisted of adults from the City of Monterrey, people 18 years old or older (n =601). An ad-hoc questionnaire was created for this research; it is known as "Survey on Physical Activity and Quality of Life." The survey consists of 64 questions used to examine 11 dimensions. However, for this work we only used those directly related to the purpose of this study.

Results:

The majority of interviewees were women (52.4%); men represented 47.6%. The largest group was that of housewives (38.27%), followed by those who have another type of job (14.48%), private business employees (10.82%), and retirees (9.98%).

There is a contradiction in the sample under study concerning the attitudes toward exercise. Most people consider that doing exercise is very important; however, almost one half of the sample does not do any exercise. These data show the limited sports culture in the community (Alvarez, 2004; Ceballos, 2005).

The fact that most people do exercise primarily in public parks, in spite of being scarce and with little infrastructure, shows how beneficial it would be to create and maintain a larger number of public squares and parks.

Conclusion:

The results obtained make it obvious that there is a widespread opinion regarding the scarcity of facilities, of how inadequate the existing ones are, and the extensive lack of security in public places for the practice of physical activities.

Even though doing exercise is considered important, almost half of the population who were the object of this study do not do any exercise.

References:

1. Alvarez, J. (2004). Los jovenes y sus habitos de salud. Una investigacion psicologica e intervencion educativa [Young People and Their Health Habits. A Psychological Research and Educational Intervention]. Trillas. Mexico.
2. Ceballos, O. Serrano, E., Sanchez, E., Zaragoza, J. (2005). Gasto energetico en escolares adolescentes de la ciudad de Monterrey, N. L. Mexico [Energy Consumption in Adolescent Students of the City of Monterrey, N.L., Mexico]. RESPYN. 6 (3) 1-8.

We would like to confirm that this poster was presented at the 2nd ICPAPH at VU University in Amsterdam from April 13 – 16 2008.

On behalf of the Local Organising Committee,

**Merel Rolf
VU University Medical Center**

**PAOG Course & Congress Organisation
VU University Medical Center
P.O.Box 7057
1007 MB Amsterdam
the Netherlands**



Determinants of physical activity in adult population of the city of Monterrey, N. L., Mexico.



Authors: Oswaldo Ceballos-Gurrola*; Javier Álvarez-Bermúdez**; Rosa Elena Medina-Rodríguez*

*Faculty of Sports Organization, **Faculty of Psychology, UANL. Mexico

oscegu@hotmail.com

Introduction

Epidemiological studies of physical activity and quality of life have generally focused on studying their relationship to health, sickness and behavior (alcohol and/or tobacco consumption, obesity, etc.). The knowledge gained from these studies is used in the prevention and control of diseases and in health promotion. Along this line, there are several works that have pointed out the benefits that result from healthy practice of regular physical activity at physiological, biological, psychological, and social levels. Thus, the various research works on physical activity and health have been used to offer different alternatives for the promotion of healthy lifestyles (Bize, et al., 2007). The purpose of this study is to analyze the determinants of physical activities and health in adults of the city of Monterrey, Mexico.

Methods

The target population consisted of adults from the City of Monterrey, people 18 years old or older (n =601). An ad-hoc questionnaire was created for this research; it is known as "Survey on Physical Activity and Quality of Life." The survey consists of 64 questions used to examine 11 dimensions. However, for this work we only used those directly related to the purpose of this study.

Results

The majority of interviewees were women (52.4%); men represented 47.6%. The largest group was that of housewives (38.27%), followed by those who have another type of job (14.48%), private business employees (10.82%), and retirees (9.98%).

There is a contradiction in the sample under study concerning the attitudes toward exercise. Most people consider that doing exercise is very important; however, almost one half of the sample does not do any exercise. These data show the limited sports culture in the community (Alvarez, 2004; Ceballos, 2005). The fact that most people do exercise primarily at home and public parks (Figure 1) in spite of being scarce and with little infrastructure, shows how beneficial it would be to create and maintain a larger number of public squares and parks.

Regarding people's constitution within the sample, we found that 30% has obesity problems (Figure 2). When people were asked about their health, 37.81% consider it as bad (Figure 3).

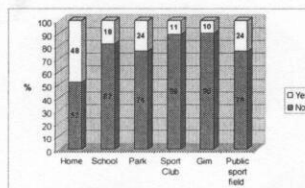


Figure 1. Place to practice exercise

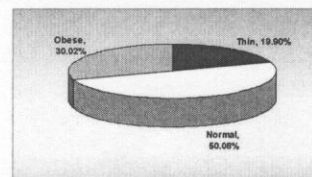


Figure 2. Constitution of the population being studied

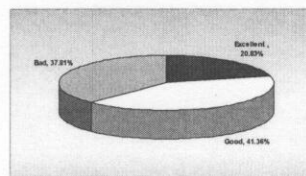


Figure 3. Health condition of the population being studied

Discussion/Conclusions

The results obtained make it obvious that there is a widespread opinion regarding the scarcity of facilities, of how inadequate the existing ones are, and the extensive lack of security in public places for the practice of physical activities. Additionally, we found a significant number of adults with health problems, and almost half of the adults do not participate in regular physical exercise. However, most of them think that it is important to do exercise. We think it is appropriate to use this information to design motivation strategies, create adequate spaces for physical exercise, and design exercise programs during adequate timetables, among many more possibilities.

References

- Alvarez, J. (2004). Los jóvenes y sus hábitos de salud. Una investigación psicológica e intervención educativa [Young People and Their Health Habits. A Psychological Research and an Educational Intervention] Trillas. Mexico.
- Bize, R., Surbeck, R., Padlina, O., Peduzzi, F., Cornuz, J. & Martin, B. (2007). Promotion of Physical Activity in the Primary Care Setting: What is the Situation in Switzerland. *Rev Med Suisse*. 28;3(135):2731-6.
- Ceballos, O. Serrano, E., Sanchez, E. & Zaragoza, J. (2005). Gasto energético en escolares adolescentes de la ciudad de Monterrey, N. L., México [Energy Consumption in Adolescent Students in the City of Monterrey, Mexico] *RESPYN*. 6(3):1-8.