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FREE TIME RETIREMENT VERSUS HEALTH PHYSICAL FITNESS

WHAT PLANS TO ADOPT A HEALTHIER LIFESTYLE! CASE

UNIVERSITY SECURITY SECTORS WORKERS

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ABSTRACT

The interplay between productivity and retirement life is central to many core issues regarding pensions and retirement. According to recent research published in the journal *Epidemiology*, (Q. Asthon Acton, PhD, 2011). Whereas (Lisa F. Berkman, et al, 2014) confirm by Gallo and colleagues that worker approach retirement, may have extensive physical and mental health consequences.

Where the free time as physical inactivity contributes to substantially and the global burden of disease. Based on background that the Retirement is a risk life stage due to the change in lifestyle. Our aims in this study are to examine these Impact on university security sectors workers. Where our hypotheses come based on the free time Retirement and the absence of leisure activities (Mo Wang, 2012).

Since the limit of the study Our assuming was based on the heartbeat, time, efforts, formula Power (Watts), the sugar level in blood, Maximum Heart Rate and Blood pressure whereas the samples were selected by the intentional manner included 14 participants in good medical health with good habits (no-smoking and no-drinkers) their mean age $\leq 53,21$ years working in the security sector of university 7 retirees in the previous year and 7 awaiting their retirement.

Based on the applied statistics our findings showed that retirement is associated with negative changes in lifestyle security sectors which increased risk for high blood pressure and the deteriorating physical health level. Whereas Promoting healthy lifestyles is a vital message government responsibility to their community (Great Britain. Parliament. House of Lords, 2006) to increase their social activities. (Dianne Hales, 2014)

KEYWORDS: Free Time Retirement, Health Physical Fitness, University Security Sector Workers

INTRODUCTION

Everyone needs work of some kind in order to be connected to our community, to develop their talents, and to learn discipline. (Christine E. Gudorf, 2013) Work can give our lives meaning, not only by bringing structure, productivity, and organization to our days (Heidi Catherine Culbertson, 2011)

Whereas transitions stage of life to another include retirement (John Blando, 2014) disorganized Stability Zone Relatively stable factors in our life. (Ruth Wright, Léonie Sugarman, 2009) where the evidence show that retirement has not immediate negative effects on health if life change means that retirees must look for ways to adapt to new routines and patterns (Robert V. Kail, John C. Cavanaugh, 2015) Our aims in this study are to examine the Impact of the retirement on

various health outcomes security sectors. Base on the Retirement offers more free time where we recommend our retirees to Engaging in leisure activities (Mo Wang, 2012).

Where Numerous studies have shown that physician recommendation is a powerful motivator to change lifestyle habits, including level of physical activity (James M. Rippe, 2013). Whereas The Results of Healthy Habits basic are eating three meals per day and avoid snacks, maintain normal body weight, exercise moderately, sleep seven or eight hours (Ron Meyers, 2003). Preparing for the retirement as transition is one of several key transition points over the life-course, which can have an impact on people's health (Lee Knifton, Neil Quinn, 2013) and (Michael L. Malone, MD, Paul R. Katz, MD, Mathy Mezey, 2013) whether Retirement brings with it not only the diminution in income, but also the loss of social prestige (K. Warner Schaie, Dan Blazer, James S. House, 2013).

From this perspective the importance of this study was to reveal. On one hand the beneficial effects working as Physical activity to manage time life confirmed by (Dominic Haydn-Davies, Emerick Kaitell, 2010) and (Bette Loef, Ellen L. de Hollander, Cécile R.L. Bootb, Karin I. Proper, 2016). In other occupation time in the retired life become physical inactivity, which contributes substantially to the global burden of disease confirmed by (James F. Sallis and Jordan A. Carlson, 2015), (Pate, Russell R., Buchner, David, 2014) and (Lee, I-M, Shiroma FJ, Lobelo F, et al, 2012). Base on reviews of studies shows on one hand, no negative effects of retirement on physical or mental health (Lisa F. Berkman, Ichiro Kawachi, M. Maria Glymour, 2014). Where Other studies explored the impact of retirement on various health outcomes (Peter A. Bamberger, Samuel B. Bacharach, 2014).

From that our addresses in this study come to examine the effects Retirement which offers more free time. Base on this backgrounder our data analysis come to check and prevent the effect of its devices quality of life in the decreased of fitness, health care, according to the recommendations Proposed by (Carroll et al, 2014), (de Hollander et al, 2015) and (Bette Loef, Ellen L. de Hollander, Cécile R.L. Bootb, Karin I. Proper, 2016).

METHODS

Study Population and Design

The data of This study were conducted in the Laboratory OPAPS" Physical Education Institute" University of Mostaganem for academic years 2014-2015. Where we have tested the sample based on the field test (Nick Draper, Helen Marshall, 2014) to esteem their ability to effort, vo2max Power anaerobic and leg explosive (VJ and Power), as we have measured Blood pressure and heartbeat to determine the impact of free time retirement on the health physical fitness between the retirees and non-retired as independent variables. whereas the sample was chosen by intentional method representing the university security sector workers their Baseline characteristics are listed in table one.

Table 1: Shows Homogeneity Population Wight and Age

| Variables | N | Mean | SD | T | Sig | R | Sig | D | Sig |
|---------------|-------------|-------|------|------|------|-------|------|------|--------------|
| Wight | Retired | 78,28 | ,95 | ,264 | 0,7 | -,070 | 0,88 | 0,01 | Small Effect |
| | Non-retired | 78,14 | 1,06 | | | | | | |
| Age | Retired | 53,28 | ,75 | 0,32 | 0,75 | ,12 | ,80 | 0,01 | Small Effect |
| | Non-retired | 53,14 | ,89 | | | | | | |
| Service Years | Retired | 33,57 | 1,62 | 1,03 | ,33 | ,01 | ,983 | 0,01 | Small Effect |
| | Non-retired | 32,71 | 1,49 | | | | | | |

For the credibility of our experience and these limits through the table 1 the homogeneity of our sample was calculated based on independent t-test and person correlation which they are not significant confirmed by the calculate of The effect size which is small between variables Wight age and service years

STATISTICAL ANALYSIS

The research samples were selected by the intentional manner included 14 workers in security sector university of Mostaganem their average ages ±58 years 7 from them are retirees in the previous year and where the other 7 awaiting their retirement. Based on homogeneity listed in table 1 our analysis, statistic was based on the calculated of the independent t test, the person correlation and the Effect Size at p value ≤ 0.05.

MEASURES

Our focus of this study it is based on selective plan all samples do not smoke and drink alcohol in good medical health. In terms of tests we have tested the sample based on the basic protocol jump test (Tom Kortemeier, Todd Kortemeier, 2016) and bending the legs (Antonio Baena Extremera , Antonio Granero Gallegos, 2015). Where our assuming was based on the vertical jump test (Hermann O. Mayr, Stefano Zaffagnini, 2015) to calculate anaerobic muscular power - leg power for Ruffier-Dickson test (Jean Ferré, Philippe Leroux, 2009) we calculate the heartbeat and index adaptation to effort as basic medical assessment. Whereas to compute Power (Watts) (John McLester, Peter St. Pierre, 2007) (Jim Breithaupt, 2015) we chose power leg (W) = 21.72 x VJ (m) x mass (kg) (Nesta Wiggins-James,Rob James, 2005) (Greg Haff,Charles Dumke, 2012) for the anaerobic muscular power we chose the formula (SAYERS, S. et al, 1999)Peak power (W) = 60.7 x VJ (cm) + 45.3 x mass(kg) - 2055 (William D. McArdle, Frank I. Katch, Victor L. Katch, 2010), for Maximum Heart Rate to estimation of VO2max (Larry Hoover, 2013) VO2 max = 15 x (HRmax ÷ HRrest) we chose the formula of (UTH, N. et al, 2004) to calculate Blood pressure we used the electronic devices that measure the blood pressure at the elbow or wrist (Alan L. Rubin, 2011).

RESULTS

Table 2: Shows the Blood Pressure at Rest and After 30 Squats in 45 Seconds

| Variables | N | Mean | SD | T | Sig | R | Sig | D | Sig |
|-------------------|-------------|--------|------|------|------|------|------|------|--------------|
| Systolic at rest | Retired | 117,14 | 1,95 | 2,75 | 0,01 | -,21 | 0,65 | 0,39 | Large effect |
| | Non-retired | 113,42 | 2,99 | | | | | | |
| Diastolic at rest | Retired | 82,57 | 5,25 | 2,13 | 0,04 | ,44 | 0,32 | 0,27 | Large effect |
| | Non-retired | 77,42 | 3,59 | | | | | | |
| Systolic Effort | Retired | 148,00 | 2,00 | 3,67 | 0,00 | ,00 | 1 | 0,53 | Large effect |
| | Non-retired | 142,00 | 3,82 | | | | | | |
| Diastolic Effort | Retired | 142,57 | 3,59 | 8,75 | 0,00 | ,31 | ,49 | 0,86 | Large effect |
| | Non-retired | 118,57 | 6,29 | | | | | | |

Through the table 2 where the correlation is not significant due to the relationships between the blood pressure and the respiratory system according to (Marcus E. Raichle, Gordon M. Shepherd, 2014) where The recommended optimal normal blood pressure for healthy adults is 120 systolic and 80 diastolic (James T Willerson, David R. Holmes, Jr. , 2015) our results in the rest and effort are in the optimal normal whereas the differences in independent t test and effect size between or sample line with the confirmation of (HORVATH, ANTHONY, PHD, 2015) that Our heartbeat and our blood pressure determine our blood circulation and our general health. Because the Blood pressure is a combination of the force and rate of the heartbeat (Shahid Aziz, 2015) whereas to explain the increase in case Retired our find line with (James G.

Adams, 2012) which confirms that Any abnormality in the respiratory rate or oxygen saturation may affect the arterial oxygen content to the respiratory rate and oxygen saturation. Based on that we confirm that the Free time retirement influence the system cardiovascular.

Table 3: Shows the Characteristics of the Organism Functional Condition for a Moderate Effort

| Variables | N | Mean | SD | T | Sig | R | Sig | D | Sig |
|-----------------------|-------------|---------|--------|-------|------|-----|------|------|--------------|
| VO2max | Retired | 29,02 | 1,42 | -4,99 | 0,01 | ,09 | ,85 | 0,67 | Large effect |
| | Non-retired | 33,14 | 1,64 | | | | | | |
| VJ (cm) | Retired | 21,71 | 3,40 | -3,19 | 0,01 | ,26 | ,572 | 0,46 | Large effect |
| | Non-retired | 26,71 | 2,36 | | | | | | |
| Anaerobic power | Retired | 2809,40 | 216,44 | -2,97 | 0,01 | ,29 | ,51 | 0,43 | Large effect |
| | Non-retired | 3106,42 | 152,10 | | | | | | |
| Power leg | Retired | 3698,30 | 58,91 | -3,10 | 0,00 | ,27 | ,55 | 0,44 | Large effect |
| | Non-retired | 4530,42 | 40,74 | | | | | | |
| Index Ruffier-Dickson | Retired | 14,54 | 1,01 | 5,43 | 0,00 | ,04 | ,99 | 0,71 | Large effect |
| | Non-retired | 11,74 | ,90 | | | | | | |

Tough the table 3 where the independent T is significant in all compare variables which characteristics the health physical fitness organism functional condition in moderate effort the Effect Size have a Large effect in the opposite of the person correlation which is not significant from all we confirm the different health states of our samples which are in the benefit of Non-retired where our results line with the confirmation promote and maintain good health Moderate-intensity aerobic activity involves a moderate level of effort relative to an individual's aerobic fitness thing confirmed by (Jana Pelclová, 2015) whereas (Peter D. Le Roux, Joshua Levine, W. Andrew Kofke, 2013) that Outcomes are described by organism functional where Individuals who do not engage in any moderate or vigorous physical activity during leisure time risk Functional capacity declines (William D. McArdle, Frank I. Katch, Victor L. Katch, 2010) case of our Retired security. From the approve we confirm that free time in retirements can contribute to degradation of the level Health Physical Abilities. where this result is approved by (James F. Sallis and Jordan A. Carlson, 2015), (Pate, Russell R., Buchner, David, 2014), (Lee, I-M, Shiroma FJ, Lobelo F, et al, 2012). From the proof we agreed the judgment of (Stuart Biddle and Nanette Mutrie, 2001) that We must get serious importance about improving the health of the nation by affirming our commitment to healthy physical activity in our case integration our retirees' in leisure activities to improves the one's well-being (Robert Kail, John Cavanaugh, 2015).

DISCUSSIONS

From the table 2and3 we observe that the free time levels due to the retirement is a serious public health problem in our community which conducted to severe consequences (N. A. Garrett et al, 2004). where the Regular time works as structure case security sectors which their work is purely physical promote healthy (L. B. Robbins et al, 2001) increasing their capacity function which upon the quality of their life.

However, in our case typically use that time to be healthier is improve in work not in the retirement where security time tend to be cam Physical inactivity which is recognized as an important risk factor for multiple causes of death and chronic morbidity and disability (Majid Ezzati, 2004). It also increases the risk of stroke and such other major cardiovascular risk factors as obesity, high blood pressure, low HDL ("good") cholesterol and diabetes (Noemie P. Beaulieu, 2008)

In addition, the security works is composed by physical activity which improves endurance and strength, allowing you to perform activities more effectively and for longer periods. (Jerrold S. Greenberg, George B. Dintiman, Barbee Myers Oakes, 2004) based on the above our results confirm in one hand the negative effect of free time retirement inactive on health physical fitness where (Krell-Rösch, Janina, 2014) required integrating these retirees in society to improve the health fitness.

CONCLUSIONS

Our findings showed that retirement is associated with negative changes in lifestyle security sectors which increased risk for high blood pressure and the deteriorating physical health level. Whereas Promoting healthy lifestyles is a vital message government responsibility to their community (Great Britain. Parliament. House of Lords, 2006) to increase their social activities. (Dianne Hales, 2014) (Karin Volkwein-Caplan, 2013) (N. A. Garrett et al, 2004). We recommend our retirees to maintain their optimal health by regular, planned, and structured with the aim of improving or maintaining one or more aspects of physical fitness (Encyclopedia of Human Nutrition, 2012). Where (McConnell, Karen, Corbin, Charles, Corbin, David, 2014) and (Sharon A. Plowman and Denise L. Smith, 2013) confirm that Health-related physical fitness is composed of components representing as a vital component of the physical activities thing confirmed by (Anne Williams and Joanne Cliffe, 2011) and (John Porcari, Cedric Bryant, Fabio Comana, 2015). Whereas integrate these two very important content areas as lifestyle is a message to our committee retirees that a regular exercise reduces the risk of heart disease (Virginia S Cowen, 2015).

Conflict of Interest

The author declares that there are no conflicts of interest.

REFERENCES

1. Alan L. Rubin. (2011). *High Blood Pressure for Dummies*. US: Wiley.com.
2. Anne Williams and Joanne Cliffe. (2011). *Primary PE: Unlocking the Potential*. UK: McGraw-Hill Education (UK).
3. Antonio Baena Extremera, Antonio Granero Gallegos. (2015). *Componentes básicos del currículum de Educación Física*. Deportiva: Ebooks Wanceulen.
4. Bette Loef, Ellen L. de Hollander, Cécile R.L. Bootb, Karin I. Proper. (2016). Physical activity of workers with and without chronic diseases. *Preventive Medicine Reports*, 3,, 30–35. doi:10.1016/j.pmedr.2015.11.008
5. Carroll et al. (2014). Vital signs: disability and physical activity—United States, 2009–2012. *MMWR Morb. Mortal. Wkly Rep*, 63 (18), 407–413.
6. Christine E. Gudorf. (2013). *Comparative Religious Ethics: Everyday Decisions for Our Everyday Lives*. US: Fortress Press.
7. de Hollander et al. (2015). Beweeg- en sportgedrag van mensen met een chronische aandoening of lichamelijke beperking (Exercise- and sports behavior of people with a chronic disease or physical disability). *RIVM, Bilthoven*.
8. Dianne Hales. (2014). *An Invitation to Health*. US: CengageBrain.com.

9. Dominic Haydn-Davies, Emerick Kaitell. (2010). *Physical Education: Beyond the Curriculum*. USA: Coachwise 1st4sport.
10. *Encyclopedia of Human Nutrition*. (2012). UK: Access Online via Elsevier.
11. Great Britain. Parliament. House of Lords. (2006). The Parliamentary Debates (Hansard). *House of Lords official report, 692*, 1.
12. Greg Haff, Charles Dumke. (2012). *Laboratory Manual for Exercise Physiology*. US: Human Kinetics.
13. Heidi Catherine Culbertson. (2011). *Wisdom and Recipes: Things I Would Have Shared With My Daughter*. US: west bow press.
14. Hermann O. Mayr, Stefano Zaffagnini. (2015). *Prevention of Injuries and Overuse in Sports*. UK: Springer Shop.
15. HORVATH, ANTHONY, PHD. (2015). *CAPITALlessISM: A Macro Model for a strong National E-conomy*. USA: CAPITALlessISM.
16. James F. Sallis and Jordan A. Carlson. (2015). Population Health: Behavioral and Social Science Insights Physical Activity: Numerous Benefits and Effective Interventions. *Agency for Healthcare Research and Quality, Rockville, MD*. Retrieved from www.ahrq.gov/professionals/education/curriculum-tools/population-health/sallis.html
17. James G. Adams. (2012). *Emergency Medicine: Clinical Essentials*. China: Elsevier Health Sciences.
18. James M. Rippe. (2013). *Lifestyle Medicine, Second Edition*. US: CRC Press.
19. James T Willerson, David R. Holmes, Jr. (2015). *Coronary Artery Disease*. UK: Springer Shop.
20. Jana Pelclová. (2015). *Physical activity in the lifestyle of the adult and senior*. czech: e-book english.
21. Jean Ferré, Philippe Leroux. (2009). *Préparation aux diplômes d'éducateur sportif*. FR: Editions Amphora.
22. Jerrold S. Greenberg, George B. Dintiman, Barbee Myers Oakes. (2004). *Physical Fitness and Wellness: Changing the Way You Look, Feel, and Perform*. UK: Human Kinetics.
23. Jim Breithaupt. (2015). *Physics*. UK: Palgrave Macmillan.
24. John Blando. (2014). *Counseling Older Adults*. US: Routledge.
25. John McLester, Peter St. Pierre. (2007). *Applied Biomechanics: Concepts and Connections*. US: CengageBrain.com.
26. John Porcari, Cedric Bryant, Fabio Comana. (2015). *Exercise Physiology*. USA: F.A. Davis.
27. K. Warner Schaie, Dan Blazer, James S. House. (2013). *Aging, Health Behaviors, and Health Outcomes*. US: Psychology Press.
28. Karin Volkwein-Caplan. (2013). *Sport Fitness Culture*. UK: Meyer & Meyer Verlag.
29. Krell-Rösch, Janina. (2014). *Interdependence of Physical (In-) Activity, Fitness and Cognition*. KIT Scientific Publishing.

30. L. B. Robbins et al. (2001). Physical activity research in nursing. *Journal of Nursing Scholarship*, 33(4), 315–321.
31. Larry Hoover. (2013). *Metabolic States: Notes on Stress, Nutrition and Exercise*. US: XLibris LLC.
32. Lee Knifton, Neil Quinn. (2013). *Public Mental Health: Global Perspectives*. UK: McGraw-Hill Education.
33. Lee, I-M, Shiroma FJ, Lobelo F, et al. (2012). Effect of physical inactivity on major non-communicable diseases worldwide: an analysis of burden of disease and life expectancy. *Lancet*, 380, 219-29.
34. Lisa F. Berkman, Ichiro Kawachi, M. Maria Glymour. (2014). *Social Epidemiology*. UK: Oxford University Press.
35. Lisa F. Berkman, Ichiro Kawachi, M. Maria Glymour. (2014). *Social Epidemiology*. UK: Oxford University Press.
36. Majid Ezzati. (2004). *Comparative Quantification of Health Risk*. Geneva: World Health Organization.
37. Marcus E. Raichle, Gordon M. Shepherd. (2014). *Angelo Mosso's Circulation of Blood in the Human Brain*. UK: Oxford University Press.
38. McConnell, Karen, Corbin, Charles, Corbin, David. (2014). *Health for Life*. USA: Human Kinetics.
39. Michael L. Malone, MD, Paul R. Katz, MD, Mathy Mezey. (2013). *The Encyclopedia of Elder Care: The Comprehensive Resource on Geriatric*. UK: Springer Publishing Company.
40. Mo Wang. (2012). *The Oxford Handbook of Retirement*. UK: Oxford University Press.
41. N. A. Garrett et al. (2004). Physical inactivity: direct cost to a health plan. *The American Journal of Preventive Medicine*, 27(4), 304–309.
42. Nesta Wiggins-James, Rob James. (2005). *AS PE for AQA*. UK: Heinemann.
43. Nick Draper, Helen Marshall. (2014). *Exercise Physiology: For Health and Sports Performance*. US: Routledge.
44. Noemie P. Beaulieu. (2008). *Physical Activity and Children: New Research*. USA: Nova.
45. Pate, Russell R., Buchner, David. (2014). *Implementing Physical Activity Strategies*. USA: Amazon France.
46. Peter A. Bamberger, Samuel B. Bacharach. (2014). *Retirement and the Hidden Epidemic*. UK: Oxford University Press.
47. Peter D. Le Roux, Joshua Levine, W. Andrew Kofke. (2013). *Monitoring in Neurocritical Care*. US: Elsevier Health Sciences.
48. Q.Asthon Acton, PhD. (2011). *Issues in Global, Public, Community, and Institutional Health*. USA: General edition.
49. Robert Kail, John Cavanaugh. (2015). *Human Development: A Life-Span View*. UK: CengageBrain.com.
50. Robert V. Kail, John C. Cavanaugh. (2015). *Human Development: A Life-Span View*. UK: CengageBrain.com.
51. Ron Meyers. (2003). *Habits of a Highly Effective Christian*. US: XulonPress.com.

52. Ruth Wright, Léonie Sugarman. (2009). *Occupational Therapy and Life Course Development*. US: Wiley.com.
53. SAYERS, S. et al. (1999). Cross-validation of three jump power equations. *Med Sci Sports Exerc*, 31, 572.
54. Shahid Aziz. (2015). *Understanding High Blood Pressure*. UK: sheldon press.
55. Sharon A. Plowman and Denise L. Smith. (2013). *Exercise Physiology for Health Fitness and Performance*. UK: Wolters Kluwer Health.
56. Stuart Biddle and Nanette Mutrie. (2001). *Psychology of Physical Activity*. USA: Psychology Press.
57. Tom Kortemeier, Todd Kortemeier. (2016). *Pro Football by the Numbers*. US: Capstone.
58. UTH, N. et al. (2004). Estimation of VO₂ max from the ratio between HR_{max} and HR_{rest} -the Heart Rate Ratio Method. *Eur J Appl Physiol*, 91(1), 111-115.
59. Virginia S Cowen. (2015). *Pathophysiology for Massage Therapists A Functional Approach*. US: F.A. Davis.
60. William D. McArdle, Frank I. Katch, Victor L. Katch. (2010). *Exercise Physiology: Nutrition, Energy, and Human Performance*. US: Wolters Kluwer Health.
61. William D. McArdle, Frank I. Katch, Victor L. Katch. (2010). *Exercise Physiology: Nutrition, Energy, and Human Performance*. US: Wolters Kluwer Health.