OEconomia

Evidence from the Russia-Ukraine Conflict on Management Decisions

Dr. Tamara- Garciac, Prof, Dr. Macchiarellia Polat

ABSTRACT

The Purpose of this research work is to examine the impact of Russia-Ukraine conflict on management decisions. Numerous businesses choose to stay in Russia despite pressure from the public and penalties to leave before Russia invades Ukraine in 2022. We examine how the financial market responded to remarks made by businesses that remained in Russia during the dramatic two weeks that followed the invasion. According to our research, a portfolio of keepers outperforms both the market benchmark and a portfolio of leavers. Remainers will suffer a severe market penalty from investors. Indicating that equities markets are very sensitive to corporate conduct during times of political unrest, there is evidence of higher trade volume and selling pressure on remainers.

Keyword- Russia-Ukraine conflict

INTRODUCTION

The embattled city of Bakhmut — currently the scene of the fiercest fighting between Russia and Ukraine's troops — has been rocked by nearly 100 shellings over the last 24 hours, a Ukrainian army spokesperson told CNN.Some 30 firefights have taken place as both militaries wage street-by-street — and even house-by-house — battle for control of the city, said Serhii Cherevatyi, of the Eastern Grouping of the Ukrainian Armed Forces. New video released by Ukraine's military illustrates the intensity of the fighting. In one, Ukrainian soldiers from the 3rd Assault Brigade can be seen firing from a position inside a shattered first-floor apartment, its corner entirely blown away. The constant sound of gunfire exchanges and explosions speaks to what Cherevatyi described yesterday as the "bloodiest of battles, unprecedented in recent decades." Russia reports

OEconomia

gains: Russia's Ministry of Defense claimed Sunday that Wagner mercenaries have captured two more blocks in the north and the south of Bakhmut, according to RIA Novosti. Units of Russia's Airborne Forces, the VDV, were providing support, the Defense Ministry added.

CNN is unable to independently verify the report, but the Institute for the Study of War in Washington, DC, appeared to back up the Russian claims, based on geolocated footage. **Russia targets supply route:** Moscow's troops launched an assault Saturday on the town of Khromove, which lies along Bakhmut's main supply route from Chasiv Yar to the west, Cherevatyi said. Logistics operations were not easy, the spokesperson told CNN, but they continued. "We can still deliver ammunition, provisions, medicines, food, and take our wounded out. Of course it is difficult, but it is possible," he said. "Our artillerymen are engaged in counter-battery operations to prevent the enemy from constantly firing on the delivery routes."

Russian forces continue to mount heavy attacks on Ukrainian towns and positions in the eastern part of the country, according to new information from a Ukrainian army spokesperson. The area between Lyman and Kupyansk — which was recaptured by Ukrainian forces six months ago, and constitutes the northernmost stretch of the front line — is under the heaviest fire with 300-400 attacks per day, Serhii Cherevatyi, of the Eastern Grouping of the Ukrainian Armed Forces, told CNN. Ukrainian paratroopers shot down a Russian Su-35 aircraft over the nearby town of Chervonopopivka, Cherevatyi said. All Russian offensives in the area were unsuccessful Saturday, the Ukrainian military claimed. Kyiv's forces also reported Russian mine-laying operations in four eastern locations.

Russia is trying to deport Ukrainian children in occupied Zaporizhzhia region, official claims

From CNN's Jorge Engels and Maria Kostenko Russian forces are trying to remove children from their families in occupied southeast Ukraine in an effort to "intimidate people," a Ukrainian military spokesperson claimed Sunday. The warning from the official, Oleksii Dmytrashkivskyi, on Ukrainian national TV echoed claims from local Telegram groups in Enerhodar, a city in the occupied Zaporizhzhia region.Users have shared unverified reports about children getting

OEconomia

deported to Russian-occupied Crimea, using Zaporizhzhia nuclear power plant buses as transport.

What we know about family separations in Ukraine: The International Criminal Court (ICC) last month issued an arrest warrant for Russian official Maria Lvova-Belova and Russian President Vladimir Putin over an alleged scheme to deport Ukrainian children to Russia, an alleged practice that CNN and others have reported on. The Ukrainian presidential office recently estimated the total number of Ukrainian children forcibly removed from their homes is at least 20,000. Thousands of cases are already under investigation, Kyiv has said.

On Monday, authorities in Ukraine's southern Kherson region said 24 more children have returned home after being taken to Russian territory. Others have recently returned to parents in the Kharkiv and Zaporizhzhia regions. Ukrainian special forces training on US-made Black Hawk helicopters have shown immediate promise, the Ukrainian Ministry of Defense said Sunday. The Black Hawks are superior to helicopters Ukraine had been using, the Mi-8 and Mi-24 in "nearly all respects," according to the ministry.

"Recently, the Ukrainian Defence Intelligence special forces have conducted regular training on the Black Hawk multi-purpose helicopter in one of the frontline areas. Special forces practiced landing combat groups on the battlefield, evacuation, landing from landing cables, and night flights," it said in a statement. Ukrainian pilots were impressed with the aircraft's "reliability, ease of operation and combat survivability," state media Ukrinform quoted a helicopter flight engineer as saying.

OEconomia

Podestà said trade policy is an "exclusive competence" issue, referring to the alliance's policies around decisions that must be made as a group, and not by individual member states. The commission is requesting more information from the involved countries to assess the measures, the spokesperson said. **The bans in question**: On Saturday, Poland banned imports of grain and other food products from Ukraine "to protect the Polish agricultural market against destabilization," the Polish prime minister's office said in a statement.

Hungarian Agriculture Minister István Nagy announced Sunday that Budapest would take similar steps, temporarily banning the import of grain, oil seeds and other agricultural products from Ukraine. "The government is committed to representing the interests of the Hungarian economic society," Nagy said in a Facebook post Sunday, adding he was taking the step "in the absence of meaningful EU measures." **What led up to the bans:** When Russia invaded Ukraine, it blocked ports and sea routes used to export Ukrainian grain to Africa and the Middle East. Fearing widespread famine, the European Union lifted duties on grain from Ukraine to ease distribution to those global markets.

Ukrainian grain has since flowed into Poland, but much of it has remained in the country, bringing down the price and causing Polish farmers to suffer significant financial losses. That's spurred protests and calls for the European Commission — effectively the EU's cabinet government — to intervene. But the international body only spurred further anger when it announced a draft decision to extend duty-free and quota-free imports of Ukrainian grain until June 2024.

The embattled city of Bakhmut — currently the scene of the fiercest fighting between Russia and Ukraine's troops — has been rocked by nearly 100 shellings over the last 24 hours, a Ukrainian army spokesperson told CNN.Some 30 firefights have taken place as both militaries wage street-by-street — and even house-by-house — battle for control of the city, said Serhii Cherevatyi, of the Eastern Grouping of the Ukrainian Armed Forces. New video released by Ukraine's military illustrates the intensity of the fighting. In one, Ukrainian soldiers from the 3rd Assault Brigade can be seen firing from a position inside a shattered first-floor apartment, its corner entirely blown away. The constant sound of gunfire exchanges and explosions speaks to what Cherevatyi

OEconomia

described yesterday as the "bloodiest of battles, unprecedented in recent decades." **Russia reports gains:** Russia's Ministry of Defense claimed Sunday that Wagner mercenaries have captured two more blocks in the north and the south of Bakhmut, according to RIA Novosti. Units of Russia's Airborne Forces, the VDV, were providing support, the Defense Ministry added.

CNN is unable to independently verify the report, but the Institute for the Study of War in Washington, DC, appeared to back up the Russian claims, based on geolocated footage. **Russia targets supply route:** Moscow's troops launched an assault Saturday on the town of Khromove, which lies along Bakhmut's main supply route from Chasiv Yar to the west, Cherevatyi said. Logistics operations were not easy, the spokesperson told CNN, but they continued. "We can still deliver ammunition, provisions, medicines, food, and take our wounded out. Of course it is difficult, but it is possible," he said. "Our artillerymen are engaged in counter-battery operations to prevent the enemy from constantly firing on the delivery routes."

Russian forces continue to mount heavy attacks on Ukrainian towns and positions in the eastern part of the country, according to new information from a Ukrainian army spokesperson. The area between Lyman and Kupyansk — which was recaptured by Ukrainian forces six months ago, and constitutes the northernmost stretch of the front line — is under the heaviest fire with 300-400 attacks per day, Serhii Cherevatyi, of the Eastern Grouping of the Ukrainian Armed Forces, told CNN. Ukrainian paratroopers shot down a Russian Su-35 aircraft over the nearby town of Chervonopopivka, Cherevatyi said. All Russian offensives in the area were unsuccessful Saturday, the Ukrainian military claimed. Kyiv's forces also reported Russian mine-laying operations in four eastern locations.

Russia is trying to deport Ukrainian children in occupied Zaporizhzhia region, official claims

From CNN's Jorge Engels and Maria Kostenko Russian forces are trying to remove children from their families in occupied southeast Ukraine in an effort to "intimidate people," a Ukrainian military spokesperson claimed Sunday. The warning from the official, Oleksii Dmytrashkivskyi, on Ukrainian national TV echoed claims from local Telegram groups in Enerhodar, a city in the occupied Zaporizhzhia region. Users have shared unverified reports about children getting

OEconomia

deported to Russian-occupied Crimea, using Zaporizhzhia nuclear power plant buses as transport.

What we know about family separations in Ukraine: The International Criminal Court (ICC) last month issued an arrest warrant for Russian official Maria Lvova-Belova and Russian President Vladimir Putin over an alleged scheme to deport Ukrainian children to Russia, an alleged practice that CNN and others have reported on. The Ukrainian presidential office recently estimated the total number of Ukrainian children forcibly removed from their homes is at least 20,000. Thousands of cases are already under investigation, Kyiv has said.

On Monday, authorities in Ukraine's southern Kherson region said 24 more children have returned home after being taken to Russian territory. Others have recently returned to parents in the Kharkiv and Zaporizhzhia regions. Ukrainian special forces training on US-made Black Hawk helicopters have shown immediate promise, the Ukrainian Ministry of Defense said Sunday. The Black Hawks are superior to helicopters Ukraine had been using, the Mi-8 and Mi-24 in "nearly all respects," according to the ministry.

"Recently, the Ukrainian Defence Intelligence special forces have conducted regular training on the Black Hawk multi-purpose helicopter in one of the frontline areas. Special forces practiced landing combat groups on the battlefield, evacuation, landing from landing cables, and night flights," it said in a statement. Ukrainian pilots were impressed with the aircraft's "reliability, ease of operation and combat survivability," state media Ukrinform quoted a helicopter flight engineer as saying.

OEconomia

Podestà said trade policy is an "exclusive competence" issue, referring to the alliance's policies around decisions that must be made as a group, and not by individual member states. The commission is requesting more information from the involved countries to assess the measures, the spokesperson said. **The bans in question**: On Saturday, Poland banned imports of grain and other food products from Ukraine "to protect the Polish agricultural market against destabilization," the Polish prime minister's office said in a statement.

Hungarian Agriculture Minister István Nagy announced Sunday that Budapest would take similar steps, temporarily banning the import of grain, oil seeds and other agricultural products from Ukraine. "The government is committed to representing the interests of the Hungarian economic society," Nagy said in a Facebook post Sunday, adding he was taking the step "in the absence of meaningful EU measures." **What led up to the bans:** When Russia invaded Ukraine, it blocked ports and sea routes used to export Ukrainian grain to Africa and the Middle East. Fearing widespread famine, the European Union lifted duties on grain from Ukraine to ease distribution to those global markets.

Ukrainian grain has since flowed into Poland, but much of it has remained in the country, bringing down the price and causing Polish farmers to suffer significant financial losses. That's spurred protests and calls for the European Commission — effectively the EU's cabinet government — to intervene. But the international body only spurred further anger when it announced a draft decision to extend duty-free and quota-free imports of Ukrainian grain until June 2024.

The embattled city of Bakhmut — currently the scene of the fiercest fighting between Russia and Ukraine's troops — has been rocked by nearly 100 shellings over the last 24 hours, a Ukrainian army spokesperson told CNN.Some 30 firefights have taken place as both militaries wage street-by-street — and even house-by-house — battle for control of the city, said Serhii Cherevatyi, of the Eastern Grouping of the Ukrainian Armed Forces. New video released by Ukraine's military illustrates the intensity of the fighting. In one, Ukrainian soldiers from the 3rd Assault Brigade can be seen firing from a position inside a shattered first-floor apartment, its corner entirely blown away. The constant sound of gunfire exchanges and explosions speaks to what Cherevatyi

OEconomia

described yesterday as the "bloodiest of battles, unprecedented in recent decades." **Russia reports gains:** Russia's Ministry of Defense claimed Sunday that Wagner mercenaries have captured two more blocks in the north and the south of Bakhmut, according to RIA Novosti. Units of Russia's Airborne Forces, the VDV, were providing support, the Defense Ministry added.

CNN is unable to independently verify the report, but the Institute for the Study of War in Washington, DC, appeared to back up the Russian claims, based on geolocated footage. **Russia targets supply route:** Moscow's troops launched an assault Saturday on the town of Khromove, which lies along Bakhmut's main supply route from Chasiv Yar to the west, Cherevatyi said. Logistics operations were not easy, the spokesperson told CNN, but they continued. "We can still deliver ammunition, provisions, medicines, food, and take our wounded out. Of course it is difficult, but it is possible," he said. "Our artillerymen are engaged in counter-battery operations to prevent the enemy from constantly firing on the delivery routes."

Russian forces continue to mount heavy attacks on Ukrainian towns and positions in the eastern part of the country, according to new information from a Ukrainian army spokesperson. The area between Lyman and Kupyansk — which was recaptured by Ukrainian forces six months ago, and constitutes the northernmost stretch of the front line — is under the heaviest fire with 300-400 attacks per day, Serhii Cherevatyi, of the Eastern Grouping of the Ukrainian Armed Forces, told CNN. Ukrainian paratroopers shot down a Russian Su-35 aircraft over the nearby town of Chervonopopivka, Cherevatyi said. All Russian offensives in the area were unsuccessful Saturday, the Ukrainian military claimed. Kyiv's forces also reported Russian mine-laying operations in four eastern locations.

Russia is trying to deport Ukrainian children in occupied Zaporizhzhia region, official claims

From CNN's Jorge Engels and Maria Kostenko Russian forces are trying to remove children from their families in occupied southeast Ukraine in an effort to "intimidate people," a Ukrainian military spokesperson claimed Sunday. The warning from the official, Oleksii Dmytrashkivskyi, on Ukrainian national TV echoed claims from local Telegram groups in Enerhodar, a city in the occupied Zaporizhzhia region. Users have shared unverified reports about children getting

OEconomia

deported to Russian-occupied Crimea, using Zaporizhzhia nuclear power plant buses as transport.

What we know about family separations in Ukraine: The International Criminal Court (ICC) last month issued an arrest warrant for Russian official Maria Lvova-Belova and Russian President Vladimir Putin over an alleged scheme to deport Ukrainian children to Russia, an alleged practice that CNN and others have reported on. The Ukrainian presidential office recently estimated the total number of Ukrainian children forcibly removed from their homes is at least 20,000. Thousands of cases are already under investigation, Kyiv has said.

On Monday, authorities in Ukraine's southern Kherson region said 24 more children have returned home after being taken to Russian territory. Others have recently returned to parents in the Kharkiv and Zaporizhzhia regions. Ukrainian special forces training on US-made Black Hawk helicopters have shown immediate promise, the Ukrainian Ministry of Defense said Sunday. The Black Hawks are superior to helicopters Ukraine had been using, the Mi-8 and Mi-24 in "nearly all respects," according to the ministry.

"Recently, the Ukrainian Defence Intelligence special forces have conducted regular training on the Black Hawk multi-purpose helicopter in one of the frontline areas. Special forces practiced landing combat groups on the battlefield, evacuation, landing from landing cables, and night flights," it said in a statement. Ukrainian pilots were impressed with the aircraft's "reliability, ease of operation and combat survivability," state media Ukrinform quoted a helicopter flight engineer as saying.

OEconomia

Podestà said trade policy is an "exclusive competence" issue, referring to the alliance's policies around decisions that must be made as a group, and not by individual member states. The commission is requesting more information from the involved countries to assess the measures, the spokesperson said. **The bans in question**: On Saturday, Poland banned imports of grain and other food products from Ukraine "to protect the Polish agricultural market against destabilization," the Polish prime minister's office said in a statement.

Hungarian Agriculture Minister István Nagy announced Sunday that Budapest would take similar steps, temporarily banning the import of grain, oil seeds and other agricultural products from Ukraine. "The government is committed to representing the interests of the Hungarian economic society," Nagy said in a Facebook post Sunday, adding he was taking the step "in the absence of meaningful EU measures." **What led up to the bans:** When Russia invaded Ukraine, it blocked ports and sea routes used to export Ukrainian grain to Africa and the Middle East. Fearing widespread famine, the European Union lifted duties on grain from Ukraine to ease distribution to those global markets.

Ukrainian grain has since flowed into Poland, but much of it has remained in the country, bringing down the price and causing Polish farmers to suffer significant financial losses. That's spurred protests and calls for the European Commission — effectively the EU's cabinet government — to intervene. But the international body only spurred further anger when it announced a draft decision to extend duty-free and quota-free imports of Ukrainian grain until June 2024.

The embattled city of Bakhmut — currently the scene of the fiercest fighting between Russia and Ukraine's troops — has been rocked by nearly 100 shellings over the last 24 hours, a Ukrainian army spokesperson told CNN.Some 30 firefights have taken place as both militaries wage street-by-street — and even house-by-house — battle for control of the city, said Serhii Cherevatyi, of the Eastern Grouping of the Ukrainian Armed Forces. New video released by Ukraine's military illustrates the intensity of the fighting. In one, Ukrainian soldiers from the 3rd Assault Brigade can be seen firing from a position inside a shattered first-floor apartment, its corner entirely blown away. The constant sound of gunfire exchanges and explosions speaks to what Cherevatyi

Research Article

OEconomia

described yesterday as the "bloodiest of battles, unprecedented in recent decades." **Russia reports gains:** Russia's Ministry of Defense claimed Sunday that Wagner mercenaries have captured two more blocks in the north and the south of Bakhmut, according to RIA Novosti. Units of Russia's Airborne Forces, the VDV, were providing support, the Defense Ministry added.

CNN is unable to independently verify the report, but the Institute for the Study of War in Washington, DC, appeared to back up the Russian claims, based on geolocated footage. **Russia targets supply route:** Moscow's troops launched an assault Saturday on the town of Khromove, which lies along Bakhmut's main supply route from Chasiv Yar to the west, Cherevatyi said. Logistics operations were not easy, the spokesperson told CNN, but they continued. "We can still deliver ammunition, provisions, medicines, food, and take our wounded out. Of course it is difficult, but it is possible," he said. "Our artillerymen are engaged in counter-battery operations to prevent the enemy from constantly firing on the delivery routes."

Russian forces continue to mount heavy attacks on Ukrainian towns and positions in the eastern part of the country, according to new information from a Ukrainian army spokesperson. The area between Lyman and Kupyansk — which was recaptured by Ukrainian forces six months ago, and constitutes the northernmost stretch of the front line — is under the heaviest fire with 300-400 attacks per day, Serhii Cherevatyi, of the Eastern Grouping of the Ukrainian Armed Forces, told CNN. Ukrainian paratroopers shot down a Russian Su-35 aircraft over the nearby town of Chervonopopivka, Cherevatyi said. All Russian offensives in the area were unsuccessful Saturday, the Ukrainian military claimed. Kyiv's forces also reported Russian mine-laying operations in four eastern locations.

Russia is trying to deport Ukrainian children in occupied Zaporizhzhia region, official claims

From CNN's Jorge Engels and Maria Kostenko Russian forces are trying to remove children from their families in occupied southeast Ukraine in an effort to "intimidate people," a Ukrainian military spokesperson claimed Sunday. The warning from the official, Oleksii Dmytrashkivskyi, on Ukrainian national TV echoed claims from local Telegram groups in Enerhodar, a city in the occupied Zaporizhzhia region. Users have shared unverified reports about children getting

OEconomia

deported to Russian-occupied Crimea, using Zaporizhzhia nuclear power plant buses as transport.

What we know about family separations in Ukraine: The International Criminal Court (ICC) last month issued an arrest warrant for Russian official Maria Lvova-Belova and Russian President Vladimir Putin over an alleged scheme to deport Ukrainian children to Russia, an alleged practice that CNN and others have reported on. The Ukrainian presidential office recently estimated the total number of Ukrainian children forcibly removed from their homes is at least 20,000. Thousands of cases are already under investigation, Kyiv has said.

On Monday, authorities in Ukraine's southern Kherson region said 24 more children have returned home after being taken to Russian territory. Others have recently returned to parents in the Kharkiv and Zaporizhzhia regions. Ukrainian special forces training on US-made Black Hawk helicopters have shown immediate promise, the Ukrainian Ministry of Defense said Sunday. The Black Hawks are superior to helicopters Ukraine had been using, the Mi-8 and Mi-24 in "nearly all respects," according to the ministry.

"Recently, the Ukrainian Defence Intelligence special forces have conducted regular training on the Black Hawk multi-purpose helicopter in one of the frontline areas. Special forces practiced landing combat groups on the battlefield, evacuation, landing from landing cables, and night flights," it said in a statement. Ukrainian pilots were impressed with the aircraft's "reliability, ease of operation and combat survivability," state media Ukrinform quoted a helicopter flight engineer as saying.

Research Article

OEconomia

Podestà said trade policy is an "exclusive competence" issue, referring to the alliance's policies around decisions that must be made as a group, and not by individual member states. The commission is requesting more information from the involved countries to assess the measures, the spokesperson said. The bans in question: On Saturday, Poland banned imports of grain and other food products from Ukraine "to protect the Polish agricultural market against destabilization," the Polish prime minister's office said in a statement.

Hungarian Agriculture Minister István Nagy announced Sunday that Budapest would take similar steps, temporarily banning the import of grain, oil seeds and other agricultural products from Ukraine. "The government is committed to representing the interests of the Hungarian economic society," Nagy said in a Facebook post Sunday, adding he was taking the step "in the absence of meaningful EU measures." **What led up to the bans:** When Russia invaded Ukraine, it blocked ports and sea routes used to export Ukrainian grain to Africa and the Middle East. Fearing widespread famine, the European Union lifted duties on grain from Ukraine to ease distribution to those global markets.

Ukrainian grain has since flowed into Poland, but much of it has remained in the country, bringing down the price and causing Polish farmers to suffer significant financial losses. That's spurred protests and calls for the European Commission — effectively the EU's cabinet government — to intervene. But the international body only spurred further anger when it announced a draft decision to extend duty-free and quota-free imports of Ukrainian grain until June 2024.

References

Mondal, S., Goon, A. K., & Varghese, J. (2014, January). Active school going female students of Kerala dominates their counterpart residing in West Bengal on health related physical fitness. InProceedings of National Conference on Physical Education and Sports Sciences (Vol. 30, p. 31st).

Rudkin, T. (2020). The Psychological and Occupational Benefits of Company Implemented Wellness Programs (Doctoral dissertation, The Chicago School of Professional Psychology).

OEconomia

Kokkinos, P. F., Giannelou, A., Manolis, A., & Pittaras, A. (2009). Physical activity in the prevention and management of high blood pressure. Hellenic J Cardiol, 50(1), 52-9.

Hartman, E., Smith, J., Houwen, S., & Visscher, C. (2017). Skill-related physical fitness versus aerobic fitness as a predictor of executive functioning in children with intellectual disabilities or borderline intellectual functioning. Research in Developmental Disabilities, 64, 1-11.

DeMet, T., & Wahl-Alexander, Z. (2019). Integrating skill-related components of fitness into physical education. Strategies, 32(5), 10-17.

de Castro Pinto, J. B., Cruz, J. P. S., de Pinho, T. M. P., & de Dias Marques, A. S. P. (2020). Healthrelated physical fitness of children and adolescents in Portugal. Children and Youth Services Review, 117, 105279.

AmericanCollege of Sports Medicine. (2013). ACSM's guidelines for exercise testing and prescription. Lippincott Williams & Wilkins.

Gu, X., Zhang, T., Chu, T. L., Keller, M. J., & Zhang, X. (2019). The direct and indirect effects of motor competence on adolescents' mental health through health-related physical fitness. Journal of sports sciences, 37(17), 1927-1933.

Walsh, J. J., Bonafiglia, J. T., Goldfield, G. S., Sigal, R. J., Kenny, G. P., Doucette, S., &Gurd, B. J. (2020). Interindividual variability and individual responses to exercise training in adolescents with obesity. Applied Physiology, Nutrition, and Metabolism, 45(1), 45-54.

Su, X., Zhang, J., Wang, W., Ni, C., Hu, S., Shao, P., & Wan, Y. (2020). Dietary patterns and risk of mild cognitive impairment among Chinese elderly: A cross-sectional study. Plos one, 15(7), e0235974

Weschenfelder, J., Bentley, J., & Himmerich, H. (2018). Physical and mental health consequences of obesity in women. Adipose Tissue, 123-159.

Louer, A. L., Simon, D. N., Switkowski, K. M., Rifas-Shiman, S. L., Gillman, M. W., &Oken, E. (2017). Assessment of child anthropometry in a large epidemiologicstudy. JoVE (Journal of Visualized Experiments), (120), e54895.

Tovar-Galvez, M. I., González-Jiménez, E., Martí-García, C., & Schmidt-RioValle, J. (2017). Body composition in a population of school adolescents: a comparison of simple anthropometric

(2023)

| Research Article |

OEconomia

methods and bioelectrical impedance. Endocrinología,Diabetes y Nutrición (English ed.), 64(8), 424-431.

Nagpal, M., Devgun, P., & Chawla, N. (2015). A study on nutritional status and change in body mass index with treatment outcome in smear-positive pulmonary TB patients on DOTS in Amritsar city.International Journal of Medical Science and Public Health, 4(4), 454-458.

Rashmi, R., &Snekhalatha, U. (2019). Evaluation of body composition parameters using various diagnostic methods: A meta analysis study. Obesity Medicine,16,100150.

Twells, L. K., Gregory, D. M., Reddigan, J., & Midodzi, W. K. (2014). Current and predicted prevalence of obesity in Canada: a trend analysis. CMAJ Open, 2(1), E18.

Trajković, N., Madić, D., Andrašić, S., Milanović, Z., &Radanović, D. (2017). Effects of medicine ball training on physical fitness in primary school children.Facta Universitatis, Series: Physical Education and Sport, 15(1), 185-193.

Stewart, V. H., Saunders, D. H., & Greig, C. A. (2014). Responsiveness of muscle size and strength to physical training in very elderly people: a systematic review.Scandinavian Journal of Medicine & Science in Sports, 24(1), el-el0.

Ibrahim, N. S., Muhamad, A. S., Ooi, F. K., Meor-Osman, J., & Chen, C. K. (2018). The effects of combined probiotic ingestion and circuit training on muscular strength and power and cytokine responses in young males. Applied Physiology, Nutrition, and Metabolism, 43(2), 180-186.

Paoli, A., Pacelli, F., Bargossi, A. M., Marcolin, G., Guzzinati, S., Neri, M., &Palma, A. (2010). Effects of three distinct protocols of fitness training on body composition, strength and blood lactate. J Sports Med Phys Fitness, 50(1), 43-51.

Ikenna, U. C., Ngozichi, O. G., Ijeoma, I., Ijeoma, N., Ifeanyichukwu, N., & Martin, O. C. (2020). Effect of circuit training on the cardiovascular endurance and quality of life: findings from an apparently healthy female adult population. Journal of Applied Life Sciences International, 1-8.

Reddy, M. (2012). Comparison of circuit training methods on performance variables of sc/st non-sc/st boys. International Journal of Multidisciplinary Research,2(4), 2231-5780.

Seo, Y. G., Noh, H. M., & Kim, S. Y. (2019). Weight loss effects of circuit training interventions: A systematic review and meta-analysis. Obesity Reviews, 20(11), 1642-1650.

(2023)

| Research Article |

OEconomia

Li, L. (2018, August). On the Importance of Physical Fitness Training in College Basketball. In 8th International Conference on Education, Management, Informationand Management Society (EMIM 2018) (pp. 129-132). Atlantis Press.

D'Isanto, T., Manna, A., &Altavilla, G. (2017). Health and physical activity.Sport Science,10(1), 100-105.

Kanter, R., & Caballero, B. (2012). Global gender disparities in obesity: a review.Advances in Nutrition, 3(4), 491-498.

Chen, W., Hammond-Bennett, A., Hypnar, A., & Mason, S. (2018). Health-related physical fitness and physical activity in elementary school students.BMC PublicHealth, 18(1), 195.

Castelli, D. M., & Valley, J. A. (2007). Chapter 3: The relationship of physical fitness and motor competence to physical activity. Journal of Teaching in Physical Education, 26(4), 358-374.

Augste, C., Lämmle, L., &Künzell, S. (2015). Does current behaviour predict the course of children's physical fitness?.European Journal of Sport Science,15(5), 429-435.

Derri, V., Aggeloussis, N., & Petraki, C. (2004). Health-related fitness and nutritional practices: can they be enhanced in upper elementary school students? The Physical Educator, 61(1).

Weiss, E. C., Galuska, D. A., Khan, L. K., &Serdula, M. K. (2006). Weight-control practices among US adults, 2001–2002. American Journal of Preventive Medicine, 31(1), 18-24.

Jones, S. M., &Stumbrys, T. (2014). Mental health, physical self and lucid dreaming: A correlational study in sport students.International Journal of Dream Research, 54-60.

Scott, M. S., Oman, R. F., & John, R. (2015). The benefits and barriers related to regular participation in physical activity by African-American women: implications for intervention development.Open Journal of Preventive Medicine,5(04), 169.

Hamoudat, M. (2008). Effect of the circuit training using the low intensity interval training method in the development of certain physical fitness elements.Al-Rafidain Sports Science Journal, 14, 216-231.

Ghassab, I., &Oudat, M. (2007). Effect of the use of the cooperative learning in developing the basic motor skills in the physical education lesson.Educational Sciences Journal, Qatar University.

Research Article

(2023)

OEconomia

Al-Rashidi, N. (2006). Proposed training curriculum to develop certain elements of the physical fitness and the skillful performance in the ground movements. Unpublished MA Thesis, Mosul: Faculty of Physical Education, University of Mosul.

Khirikoekkong, N., Jatupornpimol, N., Nosten, S., Asarath, S. A., Hanboonkunupakarn,B., McGready, R., & Cheah, P. Y. (2020). Research ethics in context: under-standing the vulnerabilities, agency and resourcefulness of research participants living along the Thai–Myanmar border.International Health,12(6), 551-559.

Warburton, D. E., Jamnik, V. K., Bredin, S. S., & Gledhill, N. (2011). The physical activity readiness questionnaire for everyone (PAR-Q+) and electronic physical activity readiness medical examination (ePARmed-X+). The Health & Fitness Journal of Canada, 4(2), 3-17.

Al-Haliq, M. (2015). Using the circuit training method to promote the physical fitness components of the HashemiteUniversity students. Advances in Physical Education, 5(03), 170.

Sperlich, B., Wallmann-Sperlich, B., Zinner, C., Von Stauffenberg, V., Losert, H., & Holmberg, H.

C. (2017). Functional high-intensity circuit training improves body composition, peak oxygen uptake, strength, and alters certain dimensions of quality of life in overweight women. Frontiers in Physiology, 8, 172.

Kim, J. W., Ko, Y. C., Seo, T. B., & Kim, Y. P. (2018). Effect of circuit training on body composition, physical fitness, and metabolic syndrome risk factors in obese female college students. Journal of Exercise Rehabilitation, 14(3), 460.