
CONFERENCE PROCEEDINGS

Philippine Physical Therapy Association Convention 2021 Conference Abstracts



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PLATFORM PRESENTATIONS

Efficacy of Aqua-Aero Fit: A Water-Based Exercise Program for Cardiorespiratory Endurance Among Psychiatric Patient in Selected Rehabilitation Center

<https://doi.org/10.46409/002.VFBC7745>

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Aim: To determine the efficacy of an Aqua-AeroFit, a Water-Based Exercise program, on cardiorespiratory endurance on patients with psychiatric conditions in selected rehabilitation centers.

Methods: This study had a quasi-experimental design with 30 participants assigned to the proposed water-based exercise program and 30 participants assigned to a land-based program. All participants were patients of a psychiatry center.

Results: Results show that psychiatrists with a weighted mean of 3.38 (N:15) much accepted the effects of the effectiveness of water-based exercise programs on cardiorespiratory endurance among psychiatry patients. The study showed the efficacy of Aqua-AeroFit, a Proposed Water-based exercise program (N:30) for cardiorespiratory endurance compared to a land-based exercise program with a $P = 0.000$, determined relevant variables creating predictive models using $\alpha = 0.05$ as the level of significance.

Conclusion and Implications: The inclusion of Aqua-AeroFit Water-Based exercise program as part of a

rehabilitation program may improve cardiorespiratory endurance in patients with psychiatric conditions

Keywords: Aqua-aero Fit. Water-based exercise, Vo2 max

Funding: Not Applicable

Ethical Approval: This paper was approved by the UPHSL Graduate School Ethics Committee

Development and Content Validation of a Questionnaire on the Perception of PPE Usage in Response to Covid-19 for Filipino Physical Therapists

<https://doi.org/10.46409/002.QHIH2997>

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Aim: To develop and perform content validation on a questionnaire that determines Filipino physical therapists' perception of the use of PPE in response to COVID-19.

Methods: The study comprises three phases, Phase 1 for Questionnaire Development, Phase 2 for Questionnaire Validation, and Phase 3 for Data analysis. The researchers recruited five (5) experts to participate in the validation process consisting of three (3) rounds and a focus group

discussion. The computed scores and comments received per round determined the action taken for each item.

Results: The final questionnaire has 33 items covering all domains of the Health Belief Theory and other sections. The final FVI (overall agreement scores), I-CVI, S-CVI/Ave, and S-CVI/UA scores for each item and the entire questionnaire are acceptable.

Conclusion and Implications: After the validation process, the final questionnaire has 33 items covering all Health Belief Theory domains with good face and content validity scores. Future researchers can now conduct a pilot study with the questionnaire to test its other psychometric properties further. The questionnaire appears to be promising in evaluating physical therapists' perceptions of using PPE about COVID-19 and may be helpful to policymakers who want to understand such perceptions better to implement better policies.

Keywords: COVID-19, Personal Protective Equipment, Questionnaire, Physical Therapists, Perception

Funding: Not applicable

Ethical Approval: This paper was approved by the University of Santo Tomas College of Rehabilitation Sciences Ethics Review Committee (SI-2020-049-R1)

PT Practices in the Rehabilitation of Patients with Covid-19 Comorbid with Cardiovascular Diseases in the USA: Basis for Philippine Recommendations

<https://doi.org/10.46409/002.QGGF8025>

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Aim: To determine physical therapy (PT) practice recommendations for COVID-19 patients with CVD applicable to the Philippines setting based on the clinical practices of PTs in the USA

Methods: A convergent mixed-method research design was used. The quantitative data were collected using a five-part electronic survey, and the qualitative data were collected through open-ended questions and interviews. The survey instrument covered the critical areas of scope, namely, acute setting; subacute; adult and geriatric; client management; and stages of patient handling. Through the snowball sampling technique of recruitment, 40 PT clinicians (seven

from the Philippines and 43 from the USA) served as respondents. Data gathered were processed using descriptive statistics, measures of central tendency, and thematic analysis.

Results: The best practices focused on incorporating individualization, evidence-based practice towards safe early mobilization, and interdisciplinary collaboration. Limitations covered the lack of evidence, scarce resources, and difficulty attaining an interdisciplinary approach. Weaknesses deduced were lack of awareness, preparedness, and collaboration in formulating protocols and service delivery. Key points of strength underscore sufficient resources and effective service delivery as requisites for holistic care for COVID-19 patients with CVD.

Conclusion and Implications: Analyzing the results, the practice recommendations for the Philippine setting focused on integrating evidence and continuing education to develop clinical reasoning, empowering interdisciplinary collaboration, providing better administrative support to PTs, promoting staff safety and adherence to protocols, and enforcing holistic, individualized rehabilitation.

Keywords: COVID-19, physical therapy, rehabilitation, cardiovascular disease, comorbidity

Funding: None

Ethical Approval: DLSMHSI-CRS PT Department Ethics Review

Physical Therapy Students' Perceptions of Yoga Exercises as a Stress-Coping Mechanism

<https://doi.org/10.46409/002.SRGW2204>

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Aim: To determine the perception of Physical Therapy (PT) students of PLM AY 2020-2021 on yoga exercises as a stress-coping mechanism.

Methods: This study used a non-experimental descriptive survey to gather data from respondents. A total of 663 PLM BSPT students participated in the study. A structured closed-ended questionnaire was used, including self-made questions, Perceptions of Academic Stress Scale, and adapted items from the Beliefs About Yoga Scale.

Results: The results show that male students experience the least academic stress (2.57 ± 0.532) than female students (2.51 ± 0.472). Fifth-year students (3.44 ± 0.486) experience the least academic stress while the 3rd year students (2.46 ± 0.474) experience the highest. In terms of the overall

perception of yoga exercises, "beneficial to physical and mental health" and "effective for coping with stress" ranked the highest, while "would take too much time" and "able to implement as part of routine" ranked the lowest.

Conclusion and Implications: Filipino health allied students who cannot adapt to the online learning brought by the COVID-19 pandemic become prone to stress, and to an extent, in a mental health crisis. Since yoga exercises have been perceived favorably in reducing the negative effects of stress, it can play a vital role in a PT student's life, especially among those with high perceived stress levels, by implementing yoga to maintain their general wellness and utilize as a coping mechanism.

Keywords: Physical Therapy students, Yoga, Stress

Funding: Not Applicable

Ethics Approval: This paper was approved by the Pamantasan ng Lungsod ng Maynila Ethics Review Committee (UCRES-DCF)

MMSU SAPASAP Framework: Priority Actions for Disability-Inclusive Development in Higher Education Institutions

<https://doi.org/10.46409/002.QVFH1656>

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Aim: To influence the growth of higher education institutions (HEIs) towards disability inclusion (DI) through a disability-inclusive framework to influence policymaking and the inclusion, rights advancement, and protection of PWDs.

Methods: Following a non-experimental developmental research design, the study was conducted in Mariano Marcos State University (MMSU) and included MMSU non-disabled and disabled learners and employees and MMSU administrative council (AdCo) members as participants selected through double stratum stratified sampling and purposive sampling, respectively. Data was gathered through an online survey for non-disabled participants, focus group discussion for learners with a disability, and key informant interviews for select AdCo members and employees with disability. Data were statistically analyzed through descriptive statistics and thematically analyzed following the Braun and Clarke thematic analysis process.

Results: MMSU is seen as a place where PWDs could thrive. In terms of attitude, environment, policies, and

positive perception of DI, Enablers to DI were present. This sets the foundation for disability-inclusive development; however, negative responses towards disability and DI were still present, emphasizing the need for improvement.

Conclusion and Implications: The MMSU SAPASAP framework, from the Ilokano term "sapasap," meaning having no one left behind, was developed with the idea of fostering MMSU towards disability-inclusive development. It identified priority actions for MMSU in achieving DI and lays out the process for continual improvement towards being an example towards true disability inclusion for HEIs.

Keywords: Barriers and enablers, disability inclusion, and persons with disability

Funding: Not Applicable

Ethical Approval: This paper was approved by the Mariano Marcos State University - University Research Ethics Review Board.

Awareness, Attitude, and Barriers on Evidence-Based Practice among Physical Therapists in Ilocos

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Aim: To determine the awareness and attitude on evidence-based practice (EBP) among physical therapists in Ilocos and identify the barriers to implementation in clinical practice.

Method: This study employed a descriptive cross-sectional research design using a pilot-tested and validated questionnaire on awareness, attitude, and barriers in EBP and conducted a key informant interview (KII). A total of 48 practicing physical therapists (hospital = 21; clinic = 18; homecare = 9) in Ilocos Norte and Ilocos Sur participated in the study considering ethical guidelines. Descriptive statistics such as frequency, percentage, and mean were used to analyze the collected data.

Results: The majority of the respondents were recent graduates with less than five years of clinical experience. The respondents were moderately aware ($\bar{X} = 4.11$) of the use of EBP and had a positive attitude ($\bar{X} = 4.34$) on using it on a day-to-day basis. The top three barriers that hindered the use of EBP is lack of time (37.5%) due to heavy workload, inability to apply research findings to patients with unique characteristics and (20.8%) and lack of research skills, lack of understanding of statistical analysis and lack of interest (12.5%).

Conclusion and Implications: There is an increasing awareness of EBP among physical therapists in Ilocos, which positively influenced clinical practice. Results of the study may further encourage the daily practical application of EBP among physical therapists in clinical practice.

Keywords: Evidence-based practice, physical therapy, awareness, attitude, barriers

Funding: Not Applicable

Ethics Approval: This paper was approved by the Mariano Marcos State University Ethics Review Board

Socio-Demographic Profile, Decision Space, and Management Capacity of Hospitals: A Causal Model on Work Environment

<https://doi.org/10.46409/002.KVBV7483>

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Aim: To develop a Causal Model that fits the working environment and assess the correlation between the working environment and socio-demographic characteristics, the level of decision space, and management capacity among training hospitals in region 10.

Methods: This Causal-Comparative Research utilized a questionnaire from the decision space model, the Black Box Model of Public Management Capacity, and the Nursing Work Index answered by 185 randomly chosen hospital staff from two DOH hospitals in Northern Mindanao.

Results: Results showed a wide level of Decision Space ($M = 3.90$), a high level of Management Capacity ($M = 4.01$) and Working Environment ($M = 3.85$). The result also showed a moderate to significant solid relationship between Decision Space ($r = .44$), Management Capacity ($r = .83$), and Working Environment; a strong relationship between and working environment. There is no relationship between Socio-Demographic profiles. Among the variables Managing for Result ($b = .307$), Human Resource Management ($b = .258$), Capital Management ($b = .162$), and IT Management ($b = .124$) predict a positive Working Environment. Lastly, among the causal models tested, a model that explains that an indirect relationship of Human Resource Management ($b = .258$) and IT Management ($b = .405$) to Working Environment through Managing for Results and a direct correlation between Human Resource Management ($b = .298$), Capital Management ($b = .185$), Managing for Results ($b = .325$) and Working Environment, showed meets the predetermined criteria for best fit."

Conclusion and Implications: The study concludes that Managing for Results or the ability to integrate results in the

planning and implementation, human resource management, and capital management are essential skills that would improve the working conditions of healthcare workers.

Keywords: Decision Space, Management Capacity, Working Environment, Healthcare System, Causal Model

Funding: Not applicable

Ethical Approval: Not applicable

Filipino Physical Therapists' Social Responsibility Entails Adopting a Societal Practice Framework: A Qualitative Study

<https://doi.org/10.46409/002.TCBN9085>

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Aim: To define the social responsibility of Filipino physical therapists from a synthesis of Filipino physical therapy leaders' and practitioners' views

Methods: Constructivism-based qualitative design was used to inquire into perspectives on the social responsibility of Filipino physical therapists. Sixteen physical therapy leaders and practitioners in the Philippines were invited to share their insights via email. Leaders were invited for their macro perspectives and influence on the profession; practitioners from various practice areas were invited to provide more practical viewpoints. Participants were interviewed one-to-one via an online conferencing platform. Interviews were transcribed, translated to English, and subjected to thematic analysis.

Results: Six themes were generated. Participants viewed Filipino physical therapists' social responsibility as a professional duty to be fulfilled with altruistic and social justice motivations. It should be particularly targeted towards responding to pressing health and social issues affecting Filipinos' access to physical therapy and experience of health.

Conclusion and Implications: Filipino physical therapists' social responsibility entails engaging in roles aside from clinical practice to contribute to Filipinos' attainment of health. This calls for the expansion of their ethical and practice frameworks to include addressing not only client issues but also the wider societal barriers to equal access to physical therapy and better experiences of health. This also calls for the scaling-up of the transformative purposes of PT education to prepare future physical therapists for their social responsibilities.

Keywords: health equity, physical therapy, professional ethics, social responsibility

Funding: This study was supported by a doctoral fellowship grant from the University of the Philippines Faculty, REPS, and Administrative Staff Development Program.

Ethical Approval: The University of the Philippines – Research Ethics Board (UPMREB 2020-411- 01) and the University of Liverpool Doctor of Education Virtual Programme Research Ethics Committee approved this study.

Changes in Lifestyle Behaviors, Coping Mechanisms, and Self-Prevention Behaviors of University Students and Employees during Covid-19 Pandemic

<https://doi.org/10.46409/002.MDWD1180>

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Aim: To determine the changes in lifestyle behaviors, coping mechanisms, and self- prevention behaviors of the students and employees of a higher education institution during the COVID-19 pandemic and determine if significant differences exist between groups on the constructs identified.

Methods: This was a descriptive-comparative study. A questionnaire on lifestyle behaviors, coping mechanisms, and self-prevention behaviors was developed, validated, and pilot tested. This questionnaire was administered to 214 students and 116 employees during the 2nd semester of AY 2021-2021. Descriptive statistics and T-test were used for analyses using $p < 0.05$ as the significance level.

Results: In terms of lifestyle behaviors, dietary habits and physical activity were grossly similar before and during the pandemic for both students and employees. Sleep remains grossly similar for the employees but slightly increased or decreased for the students. All groups utilized problem-focused coping to a “medium” amount while a “little bit” for emotion-focused and avoidant coping. Commonly used coping responses are active coping (problem-focused), religion (emotion-focused), and self-distraction (avoidant). Both students and employees were found to have employed self-prevention measures to avoid being infected by COVID-19. T-test revealed a significant difference between students' and employees' changes in lifestyle behaviors ($p = 0.040$) and dietary habits ($p = 0.042$).

Conclusion and Implications: The study revealed that lifestyle behaviors of both students and employees were not significantly affected by the COVID-19 pandemic. Effective coping strategies of students and employees

during the crisis helped them manage the impacts of the pandemic. The study also revealed that both students and employees consciously protected themselves through adherence to health protocols.

Keywords: Coping mechanisms, COVID-19 pandemic, lifestyle behaviors

Funding: Mariano Marcos State University

Ethical Approval: Mariano Marcos State University Research Ethics Review Board

Well-Being Of First-Year UST-CRS Students of First-Term Academic Year 2019-2020: A Cross-Sectional Study

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Aim: To describe the well-being and perceived well-being factors among freshmen students from the University of Santo Tomas - College of Rehabilitation Sciences (UST-CRS) of the first term academic year 2019-2020.

Methods: This descriptive quantitative study utilized the World Health Organization-QoL-BREF questionnaire to assess the different domains of well-being at the end of the first term of 214 first-year students from occupational therapy (OT), physical therapy (PT), speech-language pathology (SLP), and Sports Science (SPS) programs. Data collected were analyzed using descriptive and inferential statistics ($\alpha < 0.05$).

Results: Most of the students in all programs reported being satisfied with their health and had a good overall perception of their QoL at the end of the first term. Furthermore, physical health ($p = 0.46$), psychological health ($p = 0.44$), social relationships ($p = 0.98$) and environment ($p = 0.82$) domains were found to be similarly high across all and within programs (OT: $p = 0.24$; SLP: $p = 0.28$; SPS: $p = 0.51$) except for PT students ($p = < 0.01$). Academic demands & pressure, sleep, and high expectations from others or self were three main reported perceived factors influencing well-being. Further analyses revealed that family dynamics "and social & physical environment were significantly correlated with overall well-being.

Conclusion and Implications: This research described the well-being and perceived factors of well-being among UST-CRS first-year students after the first term academic year

2019-2020. Data may serve as a baseline for future assessment and program development of a supportive well-being curriculum for students' holistic growth and advancement.

Keywords: Well-being, Quality of Life, Allied Health Sciences

Funding: Research was partially funded and supported by the University of Santo Tomas College of Rehabilitation Sciences

Ethical Approval: The UST-CRS Ethical Review Committee (Protocol Number: FI 2019-004) has approved the study

Prevalence And Risk Factors of Anxiety and Depression among University Students and Employees During Covid-19 Pandemic

<https://doi.org/10.46409/002.OYVF2653>

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Aim: To determine the prevalence and perceived risk factors of anxiety and depression among employees and students at the Mariano Marcos State University during the COVID-19 pandemic and determine if significant differences exist between groups on the identified variables.

Method: This was a descriptive-comparative study that used a survey consisting of the screening questionnaire, Patient Health Questionnaire-9 (PHQ-9), Generalized Anxiety Disorder-7 (GAD-7), and Perceived Risk Factors of Anxiety and Depression Questionnaire (PRFAD). The developed, validated, and pilot-tested questionnaire was administered to 212 students and 114 employees during the second semester of 2020-2021. Descriptive statistics and T-test were used for analyses using $p < 0.05$ as the significance level.

Results: Results showed that most students have mild severity of anxiety and depression while employees have none to minimal. Cultural factors like the adverse working environment, social inequalities and exclusion, and adverse media influences were identified as moderate risk factors in anxiety and depression. Moreover, there were significant differences in the prevalence of anxiety and depression between students and employees and between teaching and non-teaching employees. There were higher self-reported anxiety and depression among students than employees and among teaching employees than non-teaching employees.

Conclusion and Implications: With a higher prevalence of anxiety and depression among students, higher education

institutions must strengthen their student welfare services. Also, employees' mental health needs must be considered by providing services to alleviate their anxiety and depression. A holistic and comprehensive policy on mental health promotion should be implemented to improve the mental health status of students and employees.

Keywords: depression, anxiety, COVID-19 pandemic

Funding: Mariano Marcos State University

Ethics Approval: This paper was approved by the Mariano Marcos State University Research Ethics Review Board (Reference number: 2020-046)

A Systematic Review on Effectiveness of Online Well-Being Programs for The Physical and Mental Well-Being of University Health-Allied Students

<https://doi.org/10.46409/002.TEKB6177>

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Aim: The study reviewed available literature on the effectiveness of online well-being programs concerning university health-allied students' physical and mental well-being.

Methods: Following the Preferred Reporting Items for Systematic Reviews and MetaAnalyses guidelines, this study involved searching for intervention articles for health-allied university students in the electronic databases of ProQuest, Herdin, Research Gate, ScienceDirect, Wiley Online Library, ERIC, DOAJ, CORE, PubMed, EBSCOHost, Google Scholar, Taylor & Francis, and Emerald Insights. The Cochrane Intervention Review guidelines became the basis for the results of the studies that met the quality criteria. For the other study designs, specific appraisal tools were used. Participants' characteristics, intervention parameters, and outcomes were extracted and synthesized for analysis.

Results: Ten studies were included and reported in the study. All studies focusing on physical well-being ($n = 2$) reported significant improvements in physical activity with concurrent positive effects on mental well-being. Overall, studies focusing on mental well-being ($n = 8$) had mixed results on interventions providing statistically significant results. However, most studies either have practical significance ranging from mild to large effects, having a positive directional change for outcomes, or deemed helpful with a high participation rate.

Conclusion and Implications: This review found evidence suggesting the effectiveness of online physical and mental health interventions for health allied university students. Interventions that encompass both physical and mental health are deemed the most effective.

Keywords: Systematic review, online well-being interventions, physical well-being, mental well-being, health-allied students

Funding: Not applicable.

Ethical Approval: Not applicable

Commonly Used Outcome Measurement Tools in Pediatric Physical Therapy Telerehabilitation in the Philippines: A Quantitative Cross-Sectional Descriptive Study

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Aim: The objective of the research is to identify the most common Outcome Measure Tools used in telerehabilitation by Filipino pediatric physical therapists.

Methods: The research is a quantitative descriptive study with two phases. Phase I is the validation and pilot testing of an adapted questionnaire. A panel of three experts rated the questionnaire's items using a Likert scale; afterward, the content validity index was determined. In addition, pilot testing was done to determine the survey's average duration. Phase II is the questionnaire implementation using a Google Form. The study used frequencies and percentages to report participants' responses.

Results: The final version of the adapted questionnaire had 23 items that were considered relevant. Of the 45 respondents, 51% used Outcome Measure Tools (OMT) during telerehabilitation. The most common OMT used in pediatric telerehabilitation is the Gross Motor Function Measure (GMFM) (100%), followed by the Pediatric Balance Scale (PBS) (30%), Goal Attainment Scale (GAS) (13%), and Test of Gross Motor Development - Second Edition (TGMD-2) (13%). The top enabler for OMT use in the telerehabilitation setting is the criterion of being easily understood by patients, clients, and caregivers (87%). Contrariwise, the main reason for the non-usage of OMTs is the difficulty for the stakeholders to complete OMTs independently (68%).

Conclusion and Implications: The commonly used OMTs in telerehabilitation are the GMFM, PBS, GAS, and TGMD-2. The main reason for OMT use is the ease of understanding by the stakeholders.

Keywords: Outcome Measure Tools, Pediatric Physical Therapy, Telerehabilitation

Funding: Not applicable

Ethical Approval: This paper was approved by the University of Santo Tomas College of Rehabilitation Sciences Ethics Review Committee (SI-2020-034-OR).

Experiences of Filipino Physical Therapists in Using Outcome Measure Tools in Pediatric Telerehabilitation: A Phenomenological Study

<https://doi.org/10.46409/002.ITXT7369>

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University of Santo Tomas

Aim: The researchers describe Filipino physical therapists' experiences using outcome measure tools (OMTs) in pediatric telerehabilitation during the COVID-19 pandemic.

Methods: Using a phenomenological qualitative study design, researchers employed one online focus group discussion with six de-identified participants through purposive and snowball sampling and transcribed them manually. Researchers utilized Colaizzi's thematic analysis and constant comparison to analyze data. Findings underwent member checking and peer debriefing with a qualitative expert.

Results: Thematic analysis identified the following themes: facilitators, barriers, and recommendations, categorized under three domains. On the OMT's level, facilitators include objective and standardized measures, appropriateness, and modifiable, while barriers include lack of evidence and time-consuming. No facilitators were identified on the carer's level, while barriers include lack of resources, lack of clinical background, technical issues, a non-conducive environment, and language barrier. Finally, the interdisciplinary approach was identified as a facilitator on the therapist's level, while barriers include optional use and lack of handling. Sub-themes for recommendations include selecting appropriate tools, understanding the child's context, carer empowerment, pre-session preparation, time efficiency, and support group.

Conclusion and Implications: The study found that barriers outweigh the facilitators, particularly at the carer's level, possibly limiting the use of standardized tools. These findings instigate the need to explore carers' perceptions on OMT usage in pediatric telerehabilitation. Researchers recommend that academicians, clinicians, and administrators adjust to the current situation by mitigating these barriers and encouraging facilitators through therapists' recommendations.

Keywords: Outcome Measure Tools, Pediatric Physical Therapy, Telerehabilitation

Funding: Not applicable

Ethical Approval: This paper and its amendment were approved by the University of Santo Tomas College of Rehabilitation Sciences Ethics Review Committee (SI-2020-045-R1).

Telerehabilitation-Based Physical Therapy Practice in the Philippines: Knowledge, Perceptions, Barriers, and Risks

<https://doi.org/10.46409/002.XCYR4687>

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Pamantasan ng Lungsod ng Maynila

Aim: The study aimed to determine the level of knowledge, perception, perceived barriers, and risks of telerehabilitation among Filipino Physical Therapists during the COVID-19 pandemic.

Method: A descriptive, cross-sectional survey on the knowledge, perception, barriers, and risk to telerehabilitation-based Physical Therapy practice was conducted among Filipino Physical Therapists. The electronic survey questionnaire includes demographic profile, knowledge towards telerehabilitation, perceived barriers and risk, and overall perception of telerehabilitation practice during the COVID-19 pandemic. Descriptive statistics were used to summarize the responses.

Results: A total of 55 respondents participated in the study. Results showed that most respondents (43; 78.2%) considered telerehabilitation a viable option to deliver rehabilitation services to patients during the COVID-19 pandemic. Furthermore, 62% (34) reported that they have a good knowledge of telerehabilitation. The main barriers that led to their limited use of telerehabilitation systems are lack of Information & Communication Technology knowledge, its high cost, rapid changes, and patient compliance (31; 56.4%). In addition, patient data security, privacy, consultation from an unauthorized person, and difficulty

establishing meaningful interactions with the patient were identified as risks associated with telerehabilitation (42; 76.4%).

Conclusion and Implications: The use of telerehabilitation in the midst of the pandemic COVID-19 was well recognized and widely accepted by Filipino Physical Therapists; however, barriers and potential threats need to be minimized. Establishing telerehabilitation guidelines and increasing awareness will allow better delivery of telerehabilitation services. This study is vital in the provision of rehabilitation services to patients and the advancement of the profession in this time of public health crisis.

Keywords: Telerehabilitation, Technology Acceptance Model, Physical Therapy Advancement

Funding: Not Applicable

Ethics Approval: This study was approved by the Pamantasan ng Lungsod ng Maynila College of Physical Therapy Technical/Ethics Review Committee

Design, Development, and Implementation of the Pediatric Physical Therapy Senior Clinical Internship Telerehabilitation Program of De La Salle Medical and Health Sciences Institute: The Pandemic Impetus

<https://doi.org/10.46409/002.JUIP9481>

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Aim: Develop a benchmark model that can be used by tertiary-level health institutions in the implementation of the Pediatric Senior Clinical Internship Training Program using telerehabilitation.

Method: This is a descriptive-qualitative paper that focuses on explaining the design, development, and implementation processes used by De La Salle Medical and Health Sciences Institute – College of Rehabilitation Sciences Physical Therapy Department in its Pediatric Cluster Senior Clinical Internship Training Program covering the pandemic years spanning from the academic year 2020- 2021 to present.

Results: Determination of the Pediatric Telerehabilitation Model; declaration of developed training program outcomes and thrusts, and content; explanation of the process integral to the training program's pedagogy in implementation; and the evaluation procedures conducted for the program.

Conclusion and Implications: The pandemic situation continues to affect the lives of many people, including children with disabilities and their families globally, especially in developing countries like the Philippines. The

operations of health programs, industries, and economic sectors, as well as academic training institutions, are still challenged in terms of operations and delivery of services. The academic community of the Physical Therapy program is not spared by this circumstance. The restriction posted by the quarantine policies nearly terminated the onsite delivery of training programs for the senior internship level, which challenged the academic institutions to implement flexible learning programs to ensure the continuity of the instructional and learning processes with full consideration of safety and compliance to health protocols. This paper presents the big picture of how a tertiary-level health sciences institution in the Philippines embraced the senior clinical internship challenges through the operations of its telerehabilitation program.

Keywords: Pediatric Physical Therapy, Telerehabilitation, Clinical Internship

Funding: Not Applicable

Ethics Approval: This paper was endorsed by the management of the College of Rehabilitation Sciences of De La Salle Medical and Health Sciences Institute

Cross-Cultural Adaptation and Reliability of the Multidimensional Outcome Expectations for Exercise Scale (MOEES) In Filipino Older Adults

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Aim: Older adults have varying outcome expectations on why they exercise. The Multidimensional Outcomes Expectation for Exercise Scale (MOEES) is used to measure this; however, it has not been cross-culturally adapted yet in the Filipino setting. Therefore, this study aimed to translate and cross-culturally adapt the MOEES into Filipino and establish its preliminary psychometric properties in community-dwelling Filipino older adults.

Methods: This psychometric study had two phases. Phase 1 was the MOEES translation and cross-cultural adaptation following the Beaton Protocol. Phase 2 established preliminary psychometric properties based on the internal consistency and test-retest reliability of the adapted MOEES from 38 conveniently sampled community-dwelling Filipino older adults aged 60 or above. Internal

consistency was assessed using Cronbach's alpha coefficient and item-total correlations. Intraclass correlation/ ICC (3, K) was utilized to establish test-retest reliability.

Results: MOEES-F has high overall internal consistency ($\alpha = 0.925$). The internal consistency for both the physical ($\alpha = 0.927$) and social ($\alpha = 0.950$) subscales are high, while the self-evaluative subscale is adequate ($\alpha = 0.76$). Item-total correlations are acceptable for clinical measures (0.520-0.764). Test-retest reliability is excellent (ICC = 0.974, 95% CI [.949,.986]).

Conclusion and Implications: The MOEES-F is a valid and reliable tool that healthcare professionals in the Philippines can use to design and deliver exercise interventions to older adults aligned with their outcome expectations. This can now be used as an outcome measure tool for prospective observational and experimental studies on exercise among older Filipino adults.

Keywords: Outcome Expectations, Exercise, Older Adults

Funding: Not Applicable

Ethical Approval: The study protocol was approved by the Ethics Review Committee of the University of Santo Tomas-College of Rehabilitation Sciences (SI- 2020-026).

Filipino Physical Therapists' Promotion of Physical Activity in Older Adults: Knowledge, Practice, and Exploring Related Factors

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Aim: To describe Filipino PTs' knowledge of WHO physical activity (PA) guidelines and their use of behavioral change techniques (BCTs) and theories when promoting PA in older adults. To explore factors that potentially influence their engagement in PA promotion.

Methods: Filipino PTs who handled older adult clients from March to April 2020 answered an online/printed survey. Recruitment was done through various practice sites and the PPTA. Descriptive statistics summarized responses and correlational analysis explored whether key determinants and relevant demographic characteristics were linked to PA promotion in older adult clients.

Results: There were 72 respondents. Data collection was concluded early following the COVID pandemic restrictions and major changes in the PT practice landscape

in the Philippines. More than half were unaware (59.15%), and most could not recall the WHO guidelines (98.61%) correctly. Respondents used a limited range of BCTs when promoting PA. While some were aware of at least one behavior change theory (66.66%), a number were unfamiliar with these (33.33%), with only a small proportion reporting regular use in practice. Various factors were found to have a statistically significant positive relationship with PA promotion.

Conclusion and Implications: Study results can serve as the basis for programs that improve knowledge of Filipino PTs with regards to WHO PA guidelines and strengthen their use of a wider range of BCTs and theories to guide PA promotion in older adult clients. This can potentially place Filipino PTs at the forefront of addressing this public health concern in the aging Filipino population.

Keywords: physical activity, behavior change, older adults, sedentary behavior

Funding: This project received funding from the National Institutes of Health Student Researcher Grant (NIH 2020-013-29)

Ethical Approval: University of the Philippines Manila Research Ethics Board (UPMREB 2019-476-01)

Evaluation of an Arnis-Based Exercise Program for Community-Dwelling Older Adults in the Philippines: An Exploratory Study

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Aim: Arnis is the national martial art of the Philippines. Similar to Tai Chi, a martial art with established therapeutic effects, it can improve the balance control of older adults. However, there has been no study conducted to prove this. This study aimed to design and evaluate an Arnis-based exercise program to improve the static and dynamic balance control of community-dwelling Filipino older adults.

Methods: A qualitative exploratory study using the Delphi Method was conducted. A 12-week moderate-intensity Arnis-based exercise program for older adults was designed. A Physical Therapist, Geriatrician, Sports

Scientist, Arnis Expert, and Senior Citizen separately evaluated the video-recorded exercise program. Semi-structured interviews were individually completed online to gather their feedback. Three researchers completed the thematic analysis.

Results: Four themes represented the evaluation of the Arnis-based exercise program: Program presentation, Participant consideration, Program aspects, and safety provisions. After one round of interviews, a strong consensus was reached based on the program's appropriateness, difficulty level, benefits, and feasibility for older adults. However, the exercise program needs to be revised to improve on the aspects of safety, instructions, structure, and progression.

Conclusion and Implications: The resource persons recommend the Arnis-based exercise program as an appropriate and feasible intervention to improve the static and dynamic balance control of older adults. However, the second round of interviews is recommended to evaluate further the revised program. More studies also are necessary to establish the actual effect of this Arnis-based exercise program using experimental design.

Keywords: Older Adults, Balance, Arnis

Funding: Not applicable

Ethical Approval: The study protocol was approved by the University of Santo Tomas - College of Rehabilitation Sciences Ethics Review Committee (SI-2020-024R1)

Effectiveness of Exergaming in Improving Well-Being of Older Adults Living in Institutionalized Centers: A Pilot Randomized Controlled Trial Study

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Aim: To determine the effectiveness of exergaming in improving the well-being of older adults living in institutionalized centers.

Methods: This two-arm pilot pre-post assessment randomized controlled trial was conducted among older adults living in institutionalized centers in the Philippines. Participating centers were allocated through the fishbowl method for six weeks to the Controlled Group (n = 8) and Experimental Group (n = 6). The pre-posttest outcomes of

the interventions were assessed, and well-being was quantified using the Short Form-36 (SF-36).

Results: Fourteen participants with mean age, 64.64 years old + 4.57 SD (nine female and five male participants) were included in the study. The results showed an improvement in the SF-36 subsets of Physical Functioning, Energy/Fatigue, and Emotional Well-being ($p < 0.01$) of older adults who used exergaming while those under the control group experienced an improvement in the Physical Functioning, Energy/Fatigue, Emotional Well-being, and General Health subsets ($p < 0.01$). However, comparison of outcomes from baseline until after four-week assessment between groups revealed no significant difference ($p > 0.05$).

Conclusion and Implications: Exergaming suggests no improvement in the general well-being as measured by SF-36. However, exergaming effectively improved the subsets of older adults' physical, emotional, and psychological well-being in institutionalized centers. Exergaming also has the same effect as physical/aerobic exercises in older adults living in institutionalized centers. This pilot study serves as a basis for future implementation of a fully powered randomized controlled trial design assessing improvements and long-term effects.

Keywords: Well-being, Older Adults, Exergaming

Funding: Not applicable

Ethical Approval: This paper was approved by the University of Santo Tomas College of Rehabilitation Sciences Ethics Review Committee (SI-2020-036-OR).

The Effects of Active Range of Motion on Upper Trapezius' Fasciae Displacement among Individuals with and without Myofascial Pain Syndrome

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Aim: This study determined the differences in upper trapezius' superficial and deep fascia slides among MPS and non-MPS participants after performing cervical active range of motion (AROM). The association between the fascia

slides, age, sex, occupation, clinical diagnosis, and symptoms' chronicity were determined.

Methods: This retrospective study constituted a reliability and case-control study. Three hundred participants (174 MPS; 126 non-MPS) were included. For each fascia level, six physiotherapy interns read 19 MSUS videos. Bland Altman Plot and Single Measures Intraclass Correlation Coefficient (ICC) determined the physiotherapy interns' intratester and intertester reliability. Twelve physiotherapy interns quantified the fascia slides in 3,600 MSUS videos. MPS and non-MPS groups were compared against differences in fascia slides using independent samples t-test. A p-value of < 0.05 indicated significant differences in fascia slides. Multiple regression analyses determined fascia slides and independent variables' relationship.

Results: Intertester reliability in tracking the superficial and deep fasciae was very good (ICC = 0.90 to 1.00). Intratester reliability showed minimal to no individual bias (95% CI). A significant difference in superficial fascia displacement between groups was only observed during active cervical extension ($p < 0.05$). No difference in cervical AROM was reported in deep fascia displacement between groups ($p > 0.05$). No associations were found between superficial fascia slides and independent variables ($p > 0.05$). Sex was the only variable associated with deep fascia slide difference ($p < 0.05$).

Conclusion and Implications: Limited fascia slide is not a characteristic of individuals with MPS. There is no association between differences in fascia slides and independent variables.

Keywords: MPS, fascia displacement, upper trapezius

Funding: This study was funded by the CHED DARE TO Grant.

Ethical Approval: The study was authorized by the Ethics Review Committee of the University of Santo Tomas-College of Rehabilitation Sciences (UST-CRS) with protocol number SI-2020-046-R2.

Exergaming to Improve Balance and Decrease the Risk of Falling in Adults with Knee Osteoarthritis: A Mixed-Methods Feasibility Study

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Aim: To investigate the feasibility and acceptability of exergaming using Nintendo Wii Fit™ to improve balance

and reduce the risk of falls in individuals with knee osteoarthritis (OA).

Methods: A mixed-methods, explanatory sequential study design was utilized in this study. Participants with knee OA and a history of falling participated in a 16-week single-group pre-post experimental study design (eight weeks of usual care and exergaming program). This was followed by semi-structured focus groups to ask about the feasibility and acceptability of the study.

Results: The pre-defined feasibility criteria such as recruitment, retention (83%), and compliance (78%) were successfully met. This was affirmed by the participant's views on the procedures of the study in terms of the frequency and duration of the assessment and intervention sessions, which they reported to be acceptable. The study demonstrated that it is safe to use Nintendo Wii Fit™ as an exergaming tool as no adverse events were reported. Participants enjoyed playing Wii Fit™ games and found exergaming motivating and interactive despite some barriers to using technology.

Conclusion and Implications: The study appears feasible and safe, with some modifications that need to be considered in future research. Given the findings of this study, future research should employ a similar rigorous study design. The potential of this technology for helping to motivate and challenge participants to increase adherence to exercise could ultimately result in better outcomes and self-management of the condition.

Keywords: Exergaming, balance, falls, knee osteoarthritis, feasibility, mixed methods.

Funding: This research was supported by the University of Otago Doctoral Scholarship and Mark Steptoe Memorial Trust Grant

Ethical Approval: The ethical approval was obtained from the University of Otago Health Disability and Ethics Committee, reference: 17/STH/183.

Inter-Rater Reliability of Hand Gymnastics in Measuring Handgrip Strength among Selected Male and Female Individuals

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Aim: This study aimed to identify the interrater reliability of Hand gymnastics (HG) for isometric strength of hand cylindrical, hook, and spherical grip.

Method: The researcher utilized Slovin's formula to determine the sample size. Three licensed Physical therapist serves as independent rater. T-Test was used to identify significant differences between HG and Commercially Available Hand-Held Dynamometer (CAHHD). And Intraclass coefficient (ICC) for the reliability of the tool and Cronbach's Alpha for the internal consistency. For the ICC ; Poor Reliability for values(PR) < 0.5, Moderate Reliability (MR) for values 0.5-0.75, Good Reliability (GR) 0.75-0.90, and Excellent Reliability for (ER)> 0.90, and for Cronbach's Alpha Coefficient were: Poor Reliability (PR) = 0.10 - 0.29, Low Reliability(LR) = 0.30 - 0.49, Medium Reliability(MR) = 0.50 - 0.69, High Reliability(HR) = 0.70 - 1.0

Result: For the T-test, there is no significant difference between HG and CAHHD. ICC data showed that hook grip strength GR 0.79, cylindrical grip strength ER. 0.92 and for spherical grip strength has 0.85 GR. And for Cronbach Alpha, Hook grip strength HR 0.77, Cylindrical grip HR 0.92, and spherical grip strength of 0.85 with HR.

Conclusion and Implication: The HG was a reliable tool for measuring grip strength. HG tool can be used for a more comprehensive assessment of handgrip strength that is significant in performing activities of daily living.

Keywords: Hand Gymnastic, Interrater reliability, Hand Grip.

Funding: No funding

Ethical approval: MCU- RDO Ethics Approval No. 2020-01

Utilization of Smart Insole Technology in Gait Analysis: Towards Potential Gait Risks

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Aim: To identify the inter-rater reliability of a Sensory Insole technology for gait analysis (SIT).

Method: The researcher utilized Slovin's formula to determine the sample size. And Intra class coefficient (ICC) for the reliability of the tool and Cronbach's Alpha for the internal consistency. For the ICC; Poor Reliability for values (PR) < 0.5, Moderate Reliability (MR) for values 0.5-0.75, Good Reliability (GR) 0.75-0.90, and Excellent Reliability for (ER)> 0.90, and for Cronbach's Alpha Coefficient were: Poor Reliability (PR) = 0.10 - 0.29, Low

Reliability (LR) = 0.30 - 0.49, Medium Reliability (MR) = 0.50 - 0.69, High Reliability (HR) = 0.70 - 1.00.

Result: The ICC result of SIT had ER from Foot flat 0.94, Push-off 0.94, Swing phase 0.917. And GR on Loading phase 0.84. For Cronbach Alpha showed HR for loading phase 0.84, foot flat 0.945, push off 0.94, and swing phase 0.92.

Conclusion and Recommendations: The study indicates that SIT was a reliable tool in gait analysis. SIT can be introduced as an alternative tool in gait assessment. This can help clinicians provide objective findings in the gait assessment. This can also ensure proper demonstration and recordings, therefore, aiding PT students to have a more accurate reading of gait parameters in academic and clinical practice.

Keywords: Sensory Insole technology, Gait analysis, Gait risk

Funding: No funding

Ethics approval: MCU- RDO Ethics Approval No. 2020-03

Cross-Cultural Adaptation of Oswestry Disability Index (Ilocano Version)

<https://doi.org/10.46409/002.ZHDE7336>

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Aim: This study aims to conduct translation, cross-cultural adaptation, and validation of the Oswestry Disability Index (ODI) into Ilocano since there is no existing valid and reliable standardized tool in Ilocano language that evaluates low back pain (LBP).

Methods: The ODI was translated and cross-culturally adapted to the Ilocano language according to established guidelines of Beaton et al. 2000. Stages followed in the cross-cultural adaptation include forward translation, translation synthesis, back translation, expert committee review, and test of the pre-final version. Responses were compared to determine the concurrent validity internal consistency of ODI then test-retest validation a week later. Forty-six (46) subjects (25 female and 21 male) with a mean average age of 46.65±17.98 years old with low back pain were recruited to answer the original and Ilocano ODI.

Results: The ODI-Ilocano displayed a high degree of internal consistency, with a Cronbach's alpha of 0.93. The test-retest reliability was high (n = 45) with an ICC of 0.87 (95% CI, 0.74 to 0.98). The ODI-Ilocano version scores exhibited a strong correlation to the ODI- English version (Cronbach's alpha of 0.97, ICC 0.937, p-value ≤0.001).

Conclusion and Implications: The Ilocano version of the ODI Questionnaire is a valid and reliable tool that can be used to measure self-reported outcomes of pain and disability in Ilocano-speaking participants with low back pain.

Keywords: Low Back Pain, Self-Report, Cross-Cultural Comparison

Funding: Commission on Higher Education (CHED)

Ethical Approval: This paper was approved by the UST-Graduate School Ethics Review Committee (GS-018-PN050)

Filipino Translation and Cross-Cultural Adaptation of the Lower Extremity Functional Scale

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Aim: To translate, cross-culturally adapt, and validate the Lower Extremity Functional Scale to Filipino.

Methods: In this cross-sectional validation study, the Lower Extremity Functional Scale was translated and cross-culturally adapted to Filipino using the guidelines for cross-cultural adaptation of self-report measures by Beaton et al. and Sousa and Rojjanasrirat. The pre-final version of the Filipino Lower Extremity Functional Scale (FIL-LEFS) underwent online pilot testing (n = 11) among Filipinos across the Philippines who have musculoskeletal conditions. This was to ensure that the scale and item questions were clear and comprehensible. Subsequently, the experts' committee determined the psychometric properties of face validity using FVI and content validity using CVI and COSMIN criteria and rating system.

Results: The FIL-LEFS used Filipino terms that are understandable to Filipinos of all ages with lower extremity conditions. The Face Validity Index scores showed that all items were acceptable (> 0.80). In addition, the content validity was rated excellent (S-CVI Ave > 0.90), with all items indicating relevance and acceptability. The COSMIN content validation further showed that the study was of moderate quality in terms of sufficient content validity as rated by five experts and inconsistent content validity as rated by four experts.

Conclusion and Implications: The translation and cultural adaptation of LEFS was successful. The pilot testing results

showed that the FIL-LEFS is a valid tool in measuring difficulty in functional activities involving the lower extremity. However, there is still a need to establish its full psychometric properties.

Keywords: Filipino, LEFS, translation

Funding: Not Applicable

Ethical Approval: This paper was approved by the University of Santo Tomas-College of Rehabilitation Sciences Ethics Review Committee (SI-2020-037-R1).

Assessing Telerehabilitation Readiness among Older Adults with Hypertension in Communities in Rizal and Laguna: A Cross-Sectional Analytic Study

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Aim: To determine acceptance of telerehabilitation, accessibility to technological resources, and technical literacy, and determine the relationship between mentioned variables among older adults with hypertension.

Methods: This cross-sectional analytic study collected data through an online survey using the Web-Based Patient-Reported Outcomes Capture System-Needs, Acceptance, and Readiness Assessments questionnaire. Purposive sampling was used through the assistance of partner communities from UST Simbahayan. Relationships between independent (socio-demographics and readiness) and dependent variables (acceptance) were analyzed through robust regression (p -value <0.0001) using STATA.

Results: Most older adults ($n = 174$) were female and had secondary schooling. The overall acceptance of telerehabilitation was measured through a 4-point Likert scale (Mean = 3.42; Median = 3.57). In terms of readiness, the majority have computer access and internet access at home but have a frequency of use of less than a month. Younger age increased acceptance by 0.48%, while a college graduate increased acceptance by 13%. Living in Laguna and Rizal also increased acceptance by 13% and 26%, respectively. In contrast with past studies, this research revealed that frequency of ICT use and Internet access are not predictive of acceptance of telerehabilitation.

Conclusion and Implications: Younger age, higher educational attainment, place of residence, and computer access at home were predictive of acceptance of

telerehabilitation. The results suggest the need to include other quantitative aspects of telerehabilitation readiness. The findings of the study may aid in identifying the readiness of other communities in receiving telerehabilitation and addressing the barriers to implementing telerehabilitation.

Keywords: hypertension, telerehabilitation, readiness

Funding: The study is funded by UST Simbahayan Community Development Office.

Ethical Approval: This paper was approved by the University of Santo Tomas College of Rehabilitation Sciences Ethics Review Committee (SI-2020-042-R1).

Utilization of Postural Analysis Application Technology on Static Posture: Toward Postural Risk Assessment

<https://doi.org/10.46409/002.PVPG7476>

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Aim: To determine the instrument reliability of Postural Application Technology (PAAT) as an assessment tool of static posture.

Method: This study utilized a correlation research design to describe the relationship. Slovin's formula was used to determine the 60 participants and strictly follow the IATF guidelines. They were analyzed using Cronbach Alpha Correlation to measure internal consistency, Interclass correlation Coefficient for external reliability. A scattered plot was used to understand the correlation between variables.

Result: The internal reliability of PAAT on the Anterior View (AV) and Lateral View (LV) showed high reliability on the shoulder, ankle, torso, and leg assessments (0.80, 0.76, 0.84, 0.84) and medium reliability on AP head, arms, pelvis assessments with 0.50, 0.66, 0.61, and for LV head tilt with 0.64. For external reliability on AV, data showed excellent reliability on shoulder, pelvis, and ankle assessments (0.81, 0.77, 0.79) and good reliability on arms (0.65), and fair reliability on head and knees (0.5, 0.46) on LV. Excellent reliability on torso and legs (0.84, 0.77) and good reliability on head tilt (0.64). For scattered plot anterior data, the head, shoulder, pelvis, and ankle showed a strong positive linear correlation. In lateral data, the head tilt, and torso, showed a strong positive linear correlation while the leg showed a weak positive linear correlation.

Conclusion and Implication: PAAT is a reliable tool for the assessment of static posture that can be used by clinicians, academicians, and students for objective assessment of static posture.

Keywords: Assessment, Postural Analysis, Static Posture

Funding: No funding

Ethical Approval: MCU- RDC Ethics Review Board- 2020-05

The Effectiveness of Hold-Relax Proprioceptive Neuromuscular Facilitation Stretching on Acute Low Back Pain among DMMC-IHS Office Workers in Batangas, Philippines

<https://doi.org/10.46409/002.RPPQ4078>

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Aim: To determine the effectiveness of Hold-Relax Proprioceptive Neuromuscular Facilitation Stretching on Low Back Pain Among DMMC-IHS Office Workers.

Method: This before-and-after study utilized the range of motion (ROM), Visual Analog Scale, and Oswestry Disability Index scores in initial and final treatments of the DMMC-IHS office workers and teaching faculties ROM and functional capabilities of the staff before and after the study was determined by descriptive statistics. Correlational analyses determined relevant variables for associating effects of Hold-Relax Proprioceptive Neuromuscular Facilitation stretching on pain perception using $\alpha = 0.05$ as the significance level.

Results: A total of 15 participant data were subjected to statistical analyses after their final treatment session. Comparing the results from initial and final treatment sessions, the participants showed a difference of 3.20° and 4.20° on the ROM of the hip and 5.20° and 5.87° on the left and right knee ROM during Straight Leg Raise respectively. The level of work-related disability had a Standard Deviation of 0.35 during the first treatment and 0.26 after last treatment session. Reduction of perceived pain of the participants was significant ($p = 0.05$)."

Conclusion and Implications: Hold-Relax Proprioceptive Neuromuscular Facilitation on the hamstring muscles affected pain perception and significantly increased the participants' hip and knee joint ROM. The pain alleviation also increased their functional capacity. Therefore, using Hold-Relax Proprioceptive Neuromuscular Facilitation stretching is considered an effective intervention for patients with Low Back Pain who are looking to improve their quality of life.

Keywords: Low Back Pain, Hold-Relax Proprioceptive Neuromuscular Facilitation

Funding: N/A

Ethics Approval: This paper was approved by the DMMC-IHS CPT Ethics Committee

Cross-Cultural Adaptation and Validation of the Ilokano Knee Injury and Osteoarthritis Outcome Score (KOOS) among Ilokanos with Knee Osteoarthritis

<https://doi.org/10.46409/002.QDUP3741>

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Aim: To translate, cross-culturally adapt and evaluate the validity and reliability of the Ilokano-KOOS to patients with knee osteoarthritis in Ilocos Norte.

Methods: A quantitative non-experimental methodological research design was used in the study. The Ilokano-KOOS was developed according to the standard cross-cultural adaptation guidelines. KOOS data were obtained in patients with knee osteoarthritis. Reliability was tested using the intraclass correlation coefficient (ICC). Internal consistency was assessed using Cronbach's alpha. Construct validity was evaluated by quantifying the correlation between the Ilokano-KOOS and original-KOOS with Pearson's correlation coefficients.

Results: No major difficulties were encountered during the translation and pre-testing stages. All five domains of the Ilokano-KOOS have demonstrated a good test-retest reliability between two assessment points: 0.77- 0.97 (95% of CI). For all domains, the internal consistency was determined to be good ($\alpha = 0.770- 0.969$). Construct validity of all domains showed a good to an excellent correlation which ranged from 0.969-0.996.

Conclusion and Implications: The Ilokano-KOOS is a valid, reliable, relevant instrument with good psychometric properties. Results of the study suggest its use in physical therapy to assess the functional disabilities of Ilokano patients with knee osteoarthritis and to provide instructions for future interventions.

Keywords: KOOS, Ilokano, Translation

Funding: Not applicable

Ethical Approval: This paper was approved by the University Research Ethics Review Board (Reference number 2021-009)

Factors Associated with Post-Injury Physical Therapy Compliance among University of Santo Tomas Student-Athletes: A Cross-Sectional Correlational Study

<https://doi.org/10.46409/002.QZDC2092>

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Aim: To identify factors associated with post-injury physical therapy compliance and provide a baseline measure of the prevalence of compliance among the University of Santo Tomas-University Athletics Association of the Philippines (UST-UAAP) athletes.

Methods: A single-center, cross-sectional analytic study was conducted using data gathered from a 49-item electronic survey. Thirty-nine (39) senior-division athletes who received physical therapy after an injury completed a semi-structured, self-report questionnaire sent through their institutional emails. The questionnaire explored demographics, sports, academic, and injury background, while compliance indicators were measured using the Rehabilitation Adherence Questionnaire. Compliance was dichotomized, and between-group differences were assessed. Univariate and multivariate logistic regression models were used to identify factors that are associated with compliance.

Results: The prevalence of compliance to post-injury physical therapy among UST-UAAP athletes was 89.7%. Only the category of sports division (Team A) was found to be significantly associated with compliance (Adjusted Odds Ratio: 70.03, 95% Confidence Interval: 1.120 - 4381.1, p-value = 0.044).

Conclusion and Implications: Most UST-UAAP athletes were compliant with post-injury physical therapy. The only predictor of compliance is sports division, with Team A athletes being more compliant. Collaborative interventions to facilitate compliance in members of Team B are recommended. Further studies on athletic compliance to PT rehabilitation in the local setting should be considered.

Keywords: Physical Therapy, Compliance, UST-UAAP athletes

Funding: This research paper is not funded by any agency.

POSTER PRESENTATIONS

Factors Influencing Perceived Clinical Decision-Making Skills in Stroke Rehabilitation among Physical Therapy Interns of Ilocos Norte, Philippines

Ethical Approval: Ethical clearance was obtained from the University of Santo Tomas – College of Rehabilitation Sciences Ethics Review Committee (SI-2020-031-R2)

Patients' Perceptions on Telerehabilitation as a Mode of Physical Therapy Service Delivery

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Aim: Since telerehabilitation is a relatively new service translating to a scarcity in related literature, this study determined the perceptions of respondents regarding the recorded facilitators and barriers to this mode of physical therapy service delivery.

Methods: A quantitative, descriptive, survey type research design was utilized, wherein a self-reported survey questionnaire formulated by the researchers was administered to the respondents. The data gathered were analyzed using frequency, percentage, weighted mean (WM), and class interval.

Results: Findings showed that the perceived top facilitators include less travel time and cost (WM = 3.606) and less exposure to external risk (WM = 3.545). In comparison, the top barriers were technical difficulties (WM = 3.273) and internet connectivity (WM = 3.242). The majority of the respondents were highly satisfied (WM = 3.338) and compliant (WM = 2.798) with telerehabilitation.

Conclusion and Implications: With the results of this study, it was revealed that telerehabilitation is a viable alternative to conventional rehabilitation, as seen with the respondents' generally positive perception towards this mode of service that ultimately enhances both access and continuity of care, especially during the COVID-19 pandemic.

Keywords: Telerehabilitation, Physical Therapy, Patient Perception, Patient Satisfaction, Patient Compliance

Funding: Not Applicable

Ethical Approval: This paper was approved by the Pamantasan ng Lungsod ng Maynila College of Physical Therapy Ethical Review Committee.

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Aim: To determine the CDM skills and the different factors that influence an intern's perceived CDM skills in stroke rehabilitation.

Method: This mixed method sequential design study involved the assessment of PT interns from Ilocos Norte, Philippines using self-administered CDM tool and CDM factors questionnaire. Data analyses were done using descriptive and inferential statistics. Alpha was set at 0.05.

Results: A total of 54 students participated in the study with mean age of 21.74 + 1.08 with male to female ratio of 1:2.86. Final CDM factor questionnaire was found to have good content validity (S-CVI: 0.93) and internal consistency (Cronbach alpha > 0.70). Education, clinical PT experience, and modelling were the most reported perceived factors related to CDM skills. Further analyses revealed that locus of control of interns, environment, and previous patient experience were significantly correlated with perceived examination skills while environment, instructor, and locus of control were significantly correlated with perceived diagnosis and prognosis skills, respectively.

Conclusion and Implications: Study revealed that PT interns in Ilocos Norte reported that they can independently perform CDM skills related to intervention, outcome measurement, and evaluation in stroke rehabilitation. Findings of the study suggest that combination of different strategies that will give students several and unique learning opportunities including different learning factors may best help in improving CDM skills.

Keywords: Clinical decision-making skills, Health Education, Stroke Rehabilitation

Funding: Not Applicable

Ethics Approval: This paper was approved by the University of Santo Tomas Graduate School Ethics Review Committee (GS-2019-PN031)

Perception Of Filipino Physicians on The Roles and Scope of Practice of Physical Therapy in the Philippines

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Aim: To report the existing perceptions of Filipino physicians on the practice of physical therapy through the validated Perception on Physical Therapists Questionnaire (PoPTQ).

Methods: This study utilized a multi-method quantitative research design. For Phase 1 (psychometric), 18 questionnaires were used to compute the Cronbach's α of PoPTQ. A total of 134 questionnaires from Filipino physicians were analyzed for Phase 2 (cross-sectional), in which descriptive statistics and cross tab analysis were used to report the respondents' perceptions. Both phases utilized online means of data gathering done via convenience sampling.

Results: Phase 1 revealed an acceptable Cronbach's α value of 0.528 for all items of PoPTQ. Phase 2 showed that physicians who have attended lectures discussing the roles of physical therapists (PTs) or have experience with working with them have a higher referral rate than those with no prior exposure to PTs. Physicians believe that PTs can establish strong patient-therapist relationships and treat different patients. Furthermore, physicians positively acknowledge the roles of PTs in clinical and research settings.

Conclusion and Implications: Adequate foundational knowledge, positive perceptions, and high awareness of PTs' roles and scope of practice are observed among physicians practicing locally. However, there is a need to increase collaboration opportunities between physical therapy students and physicians in their academic years and promote physical therapy roles specific to different medical specialties. Results of this study may assist in determining areas where the promotion of physical therapy roles is needed. This study can also aid in establishing a gold standard assessment tool for quantitative perception studies.

Keywords: perception questionnaire, physical therapy roles, physician perception

Funding: Not Applicable

Ethical Approval: This paper was approved by the University of Santo Tomas College of Rehabilitation Sciences Ethics Review Committee with protocol number SI-2020-030

Inter Rater Reliability Test of Digitalized Telescoping Goniometer to Measure Active Range of Motion of Selected Large Joints Among Healthy Individuals

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Aim: This study aimed to create an alternative tool for joint measurements with higher level of confidence and minimal error.

Methods: This was a quantitative exploratory research study that determines the inter-rater reliability of the Digitalized telescoping Goniometer (DTG). 25 healthy individuals were selected using Slovin's Formula. SPSS version 24 was used in analyzing the reliability and validity. The inter-rater reliability is described by Intra class coefficient (ICC) and Limits of Agreement (LOA). The references for the interpretation of the ICC in the present study were poor reliability < 0.5, moderate reliability 0.5-0.75 good reliability 0.75-0.90, and excellent reliability for > 0.90. The Bland-Altman plots was used to investigate systematic differences and assess 95% limits of agreement (LOA) visual indication of agreement. In LOA is calculated as $LOA = \text{mean difference} + 1.96 (SD)$.

Results: The ICC result of the DGT had moderate to good reliability for shoulder, elbow and hip joint (0.8835, 0.7395, 0.66525) respectively, while poor reliability on the knee joint (0.48175). The SEM taken using DGT ranged from 1.40- 7.27. The result showed moderate reliability on shoulder (0.7055), elbow (0.5215) and knee joint (0.576) while the hip joint (0.4825) showed poor reliability. As for the LOA, DTG has a wider limit than universal goniometer for all ROM.

Conclusion and Implication: DGT showed as a reliable tool in measuring the ROM. DTG is a device can be use in goniometry.

Keywords: Goniometry, Large joints, Range of motion

Funding: No funding

Ethical approval: FEU-NRMF IERC 2019

Mobile Applications for Self-Management of Hypertension: A Systematic Review

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Aim: To recognize and describe applications from Apple and Google geared towards the self-management of hypertension and to evaluate their quality, functionality, content validity, and usefulness.

Methods: This is a systematic review of the mobile applications for self-management of hypertension available in the Philippines. The inclusion criteria included applications that were created within the last five years, are smartphone-based, and operate on either the Android OS or iOS. The study excluded applications that target other medical conditions, and applications that are solely for reference and clinicians' use. Selected applications were evaluated through the Mobile Application Rating Scale (MARS) and underwent clinical guidelines compliance analysis.

Results: A total of 1607 applications were filtered, leaving 266 applications. Twelve applications complied with the criteria, but due to inaccessibility, only four (4) were included in the study. The FITZY+ obtained the highest MARS average (4.06). Functionality domain had the highest score of more than half (3/4, 75%) of the applications. All the applications (4/4, 100%) were adherent to the treatment for hypertension in reference to the clinical guidelines.

Conclusion and Implications: Mobile health applications are promising tools, capable of minimizing the occurrence and degree of hypertension. However, the applications for self-management of hypertension are limited and of substandard quality due to inadequate information and research. Although applications satisfy some clinical guidelines, physical therapists should advise their patients not to rely solely on them as they are not the most optimal form of medical care.

Keywords: Hypertension, mobile application, mHealth

Funding: Not Applicable

Ethical Approval: Not Applicable

Ergonomic Considerations in Exergaming Delivery in Orthopedic and Neurologic Rehabilitation: A Systematic Review

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Aim: The lack of protocols and research on this aspect of this effective emerging practice led the researchers to identify the ergonomic considerations in the delivery of exergaming (exercise and gaming) in rehabilitation.

Methods: A comprehensive literature search was performed in seven electronic databases from July 8 to August 3, 2021.

Experimental studies written in English, with randomized controlled trial (RCT) design that included adult participants with orthopedic or neurologic conditions utilizing exergaming to improve balance, muscle strength, or muscle endurance were considered. Two reviewers screened articles through a set inclusion and exclusion criteria using the Rayyan and Mendeley applications. A spreadsheet software was used for the data collection process. The frequency and percentage of the study characteristics, appraisal score, and considerations highlighted, and the nature and type of its controls were obtained. The RCT Critical Appraisal Sheet of the Centre for Evidence-Based Medicine was used to appraise the included articles.

Results: A total of 68 studies were included, with 61 (89.71%) reporting safety or health considerations, 36 (52.94%) of which reported ergonomic considerations. Most ergonomic considerations were under the environment control (n = 31, 20.13%), and 13 (8.44%) under the task and 12 (7.79%) the individual controls.

Conclusion and Implications: Ergonomic considerations alongside physical and safety hazard considerations were found in the literature. The review highlights the importance of these considerations as it precludes injury and thus strengthens the effectiveness of the intervention. Further investigation on the correlation of exergaming effectivity and these considerations is warranted.

Keywords: Exergaming, Ergonomics, Rehabilitation

Funding: Not Applicable

Ethical Approval: Not Applicable

Developing a Questionnaire Regarding the Perceptions and Practices of Filipino Physical Therapists in the Management of Patellofemoral Pain Syndrome in the National Capital Region

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Aim: To develop a questionnaire to know the perceptions and practices of Filipino physical therapists in the management of PFPS.

Methods: This study consists of 2 phases. Phase 1 involves questionnaire development regarding the perceptions and practices of Physical Therapists in the management of Patellofemoral Pain Syndrome, using the domains of the

socio-ecological model. Review of existing literature and personal input from the researchers was used in developing the questionnaire. Phase 2 consists of content validation of the developed questionnaire using the Modified Delphi Technique with five expert panelists to validate each item and the questionnaire as a whole. A total of three rounds of validation were performed before a consensus was reached.

Results: After a thorough literature search, a questionnaire was developed which was entitled, Perceptions of Physical Therapists towards Patellofemoral Pain Questionnaire (PPTFPQ). Content validity of the PPTFPQ was established after three rounds of validation in which the PPTFPQ showed a high individual and scale content validity index (I-CVI range: 0.8 to 1.0; S-CVI = 0.94). The final instrument is a 26-item questionnaire that consists of 3 domains and 26 categorical questions. The 3 domains are 1) Individual domain 2) Organizational domain 3) Public Policy Domain

Conclusion and Implications: The PPTFPQ acquired an acceptable measurement of content validity and can be used in future studies to assess the perceptions and practices of PTs with regards to their management of patients with PFPS.

Keywords: Perceptions, Physical Therapy, Patellofemoral Pain Syndrome (PFPS)

Funding: Not applicable

Ethical Approval: This paper was approved by the University of Santo Tomas College of Rehabilitation Sciences Ethics Review Committee (SI-2020-041)

Musculoskeletal Symptoms and Associated Risk Factors in College Students Undertaking Online Learning

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Aim: To determine the factors associated to with musculoskeletal symptoms among college students pursuing online classes.

Method: A correlational research design was adopted in this investigation. The study employed purposive sampling. The survey had a total of 194 respondents. The Standardized Nordic Questionnaire (SNQ) was used to assess musculoskeletal symptoms, while a demographic questionnaire was used to collect information. Instruments were distributed via Google Forms. The data was examined

using Fisher Exact Test and Point Biserial Correlation (p value = 0.05)

Results: A total of 194 college students volunteered and consented to participate. The statistical analysis demonstrated that the online class and sitting hours (p value = 0.006), gender (p value = 0.000), and location (0.044) all played a significant role with musculoskeletal symptoms among the respondents.

Conclusion and Implications: Gender, sitting hours and student resident were factors correlated with the presence of musculoskeletal symptoms. Proper body mechanics, energy conservation, and relaxation techniques should be integrated to online classes to alleviate musculoskeletal symptoms. Furthermore, to avoid health-related difficulties as a result of online classes, effective and efficient implementation of online classrooms should be explored. Keywords: Musculoskeletal Problem, Online Class, Physical Therapy

Funding: Not Applicable

Ethics Approval: This paper was approved by the Research Development and Innovation Center in Our Lady of Fatima University (2020-IERC1-20120v2)

Screen Hours, Room, Number of Gadgets and Their Relation to Sleep Quality among Allied Health Students Enrolled in Online Class

<https://doi.org/10.46409/002.JAFR5443>

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Aim: To determine the factors related to the quality of sleep among allied health students

Method: A correlation study design was used to identify the components. In total, 44 persons agreed and consented to participate in the study via purposive sampling. The Pittsburgh Sleep Quality Index was used to assess sleep quality. Data with a p value of 0.05 was examined using the Pearson R and Spearman Rho correlation tests.

Results: Pearson correlation revealed a relationship between number of screen hours, (R value = .330 and P value = .029) number of gadgets (R value = .365 and P value = .015) and while Fisher exact test revealed an association between room (46.18, P value = .009) and sleep quality.

Conclusion and Implications: A statistically significant correlation was identified between screen time, the quantity of gadgets in the study room, and poor sleep quality, according to the study. The findings can be used to establish

educational activities and timetables that are more healthful for students.

Keywords: Online Class, Sleep Quality, Students.

Funding: Not Applicable

Ethics Approval: This paper was approved by the Research Development and Innovation Center in Our Lady of Fatima University (2020-IERC1-20120v2)

Mental Health Literacy among the Students and Employees of Mariano Marcos State University

<https://doi.org/10.46409/002.PIOY1363>

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Aim: To determine the Mental Health Literacy (MHL) of Mariano Marcos State University employees and students as to their ability to recognize a specific mental disorder, knowledge on the susceptibility of mental disorders, knowledge of self-treatments, knowledge of professional help available, knowledge on seeking mental health information, attitudes that promote recognition, and appropriate health-seeking behavior.

Methods: This was a descriptive-comparative study which utilized Mental Health Literacy Scale tool adapted by Connor & Casey (2015) and Dias et al. (2018). The pilot tested survey questionnaire was administered to 490 students and 158 employees during the second semester of academic year 2020-2021. Descriptive statistics and T-test were used for analyses using $p < 0.05$ as level of significance.

Results: The results showed that the respondents' MHL is sufficient as to all the variables. All variables comparing students' and employees' MHL were statistically not significant except for their knowledge on how to seek mental health information. There was also no significant statistical difference in all of the variables between teaching and non-teaching employees except for their ability to recognize a specific mental disorder. Majority of the respondents have enough knowledge and awareness to dispel most erroneous beliefs or stereotypes on individuals with mental health conditions, thus, they are more likely to approach those with mental health conditions appropriately and without stigma.

Conclusion and Implications: Most of the respondents perceive that they have sufficient MHL. This is because of the increasing reach of mental health advocacies and campaigns especially in MMSU as well as other possible contributing factors such as personal experience, curricular offering, and specialization.

Keywords: Mental health literacy, health-seeking, mental disorder

Funding: Mariano Marcos State University

Ethical Approval: Ethical approval was sought from the MMSU Research Ethics Review Board.

Effect Of Klapp's Exercises Through Telerehabilitation on The Health-Related Quality of Life of Patients with Scoliosis

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Aim: This study determined the effect of Klapp's exercises through telerehabilitation on the health-related quality of life of patients with scoliosis.

Methods: This study used one-group pretest-posttest design to determine if there is a significant difference between the pretest and posttest of patients with scoliosis with respect to intensity and quality of pain experienced by participants using the McGill short form pain questionnaire, extent of curvature of the spine using the Cobb angle measurement and health-related quality of life (HRQoL) using the quality-of-life profile for spine deformities. The Klapp's exercise was recorded, stored and forwarded to the patients. The Klapp's exercise was done for 20 sessions, five times a week.

Results: Klapp's exercises delivered through tele-rehabilitation decreases the degree of curvature of the spine ($p = 0.05$) and increase the quality of life ($p = 0.000$) of patients with scoliosis but there is no significant difference in terms of intensity of pain ($p = 0.257$).

Conclusion and Implications: Based on the findings of the study, Klapp's exercises delivered through telerehabilitation can improve the health-related quality of life of patients with scoliosis; given the patients have good internet connection, appropriate gadgets, consistent monitoring of patients and expert instructions for the intervention from the therapist. Results of this study may use as guidelines in implementing telerehabilitation as mode of physical therapy interventions.

Keywords: scoliosis, telerehabilitation, Klapp's exercise

Funding: Not applicable

Ethical Approval: This paper was approved by the Mariano Marcos State University

Research Ethics and Review Board

Comparison Between Current and Pre-Pandemic Physical Activity Level of Freshmen College Students

<https://doi.org/10.46409/002.SRQW9365>

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Aim: The restricted mobility of the students during the global COVID pandemic impacted on their physical activity level (PAL) and physical fitness level (PFL). The objectives of the study were to (1) describe the current PAL and health- and skill-related PFL of 1st year college students, (2) determine the correlation between PAL and PFL, and (3) compare current and pre-pandemic perceived PALs.

Methods: A descriptive research design was used. A retrospective data from students enrolled in Physical Education (PE) 1 was reviewed. International Physical Activity Questionnaire (IPAQ) was used to measure PAL; health-related and skill-related PFL were measured using traditional PE-based standardized tests and 10-cm visual analog scale for perceived current and pre-pandemic PAL. Spearman rho was used to determine the correlation between PAL and PFL and paired t test to compare change in PAL.

Results: The students had moderate PAL. All health-related and skill-related PFL was good except for flexibility and agility which was poor. Spearman rho correlations revealed a statistically significant correlation between PAL and muscle endurance ($r = .397$; $n = 55$; $p = .004$). Paired t test showed a statistically significant reduction in current compared with the pre-pandemic PAL $t(54) = 2.34$, $p = 0.023$.

Conclusion and Implications: Freshmen students have acceptable PAL and PFL except for flexibility and agility while poor muscle endurance correlated with lower PAL. A reduction in their PAL was noted during the pandemic. This indicates the need for programs to improve students' flexibility, agility, and muscle endurance to be incorporated in their PE classes and daily activities to improve their PAL and PFL.

Keywords: college students, physical activity level, physical fitness level

Funding: Lapu-Lapu Cebu International College

Ethical Approval: Not applicable; records review is exempted from ethics review

Demographic Characteristics & Risk Factors of Patients with Covid- 19: A Rapid Review

<https://doi.org/10.46409/002.LPMJ9098>

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Aim: To determine the demographic characteristics & demographic risk factors among COVID-19 patients who tested positive on the reverse transcription- polymerase chain reaction test (RT-PCR).

Methods: The researchers utilized a rapid review of existing online databases in searching for cross-sectional, cohort, and case-control studies. Two people appraised the included studies independently to ensure eligibility and increase efficiency. The researchers compared the data between studies.

Results: A total of 106 studies from five continents (Africa = 5; Asia = 79; Europe = 9; North America = 11; South America = 3) were reviewed. Out of 74,203 patients, 56,073 reported having mild to moderate COVID-19 severity. An increased incidence and risk of severity and mortality of COVID-19 was observed in older men (average mean = 47.28 ± 15.02 ; average median = 50.38 [0.01-95.0]), specifically ≥ 75 years old (odds ratio range: 5.6-37.9; $n = 2$) with accompanying comorbidities such as hypertension (19.17%; OR range: 1.5-4.6), diabetes (14.87%; OR range: 0.9-64.1), cardiac and cardiovascular disease (8.59%), chronic renal disease (8.06%; OR range: 0.3 - 13.4), asthma (5.17%; OR: 1.7) and others (34.8%).

Conclusion and Implications: The study determined the common demographic characteristics among patients with COVID-19 as male patients with old age and with underlying conditions like hypertension, diabetes, cardiac and cardiovascular disease, chronic renal diseases, and asthma. Most included studies report increased risk of COVID-19 infection from the common characteristics and comorbidities regardless of study origin. This study will be beneficial for the formulation & implementation of interventions & future research on COVID-19.

Keywords: COVID-19, Demographics, Risk Factors

Funding: Not applicable

Ethical Approval: This study did not require any ethical approval. The study was registered at the Philippine Health Research Registry (PHRR210303-003325).