

## Short Communication

# The MOVE.TE Falls Prevention and Management Program: lessons learnt in the Portuguese context

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## Abstract

MOVE.TE is a non-profit participatory physiotherapy platform that aims at translating knowledge in the field of physiotherapy and developing freely available evidence-based physiotherapy programmes targeting the primary care services of the Portuguese National Health service. A group of volunteer academics and clinicians collaborated at different stages and time points to create the first ever falls prevention and management programme and guidance for Physiotherapy in primary care, in Portugal. This report describes this seven-step process. In spite of many challenges, this project constitutes an example of advocacy in physiotherapy for the promotion of better healthcare for older adults.

**Keywords:** Falls prevention, Physiotherapy, Older Adults, Knowledge Translation

## Background

Falls in older adults are a major public health issue, having been identified as a major cause of disability, as well as a significant economic and societal burden in Portugal<sup>1</sup>. Indeed, there is strong evidence that falls are the third most common cause of mortality in middle-aged Portuguese citizens<sup>2</sup>, and they are the first cause of accidents and premature deaths among older adults<sup>3-5</sup>. In 2017, the Portuguese government established a National Strategy for the Promotion of Healthy and Active Ageing 2017-2025, with falls prevention and management among its aims<sup>6</sup>. The assessment and management of falls risk factors interventions are within the scope of practice of physiotherapists working with ageing adults<sup>7</sup>. The skillsets and competences of physiotherapists can contribute to mitigating the consequences of this public health challenge in Portugal.

In 2016, the Primary Health Care Reform Coordination

Commission appointed a working group of physiotherapists responsible for analyzing physiotherapy's place within primary care. Two main problems were identified: (1) a lack of national strategic planning regarding the role of physiotherapy within the needs of the older population's self-management; and (2) the absence of an effective liaison between clinicians and academics that could facilitate

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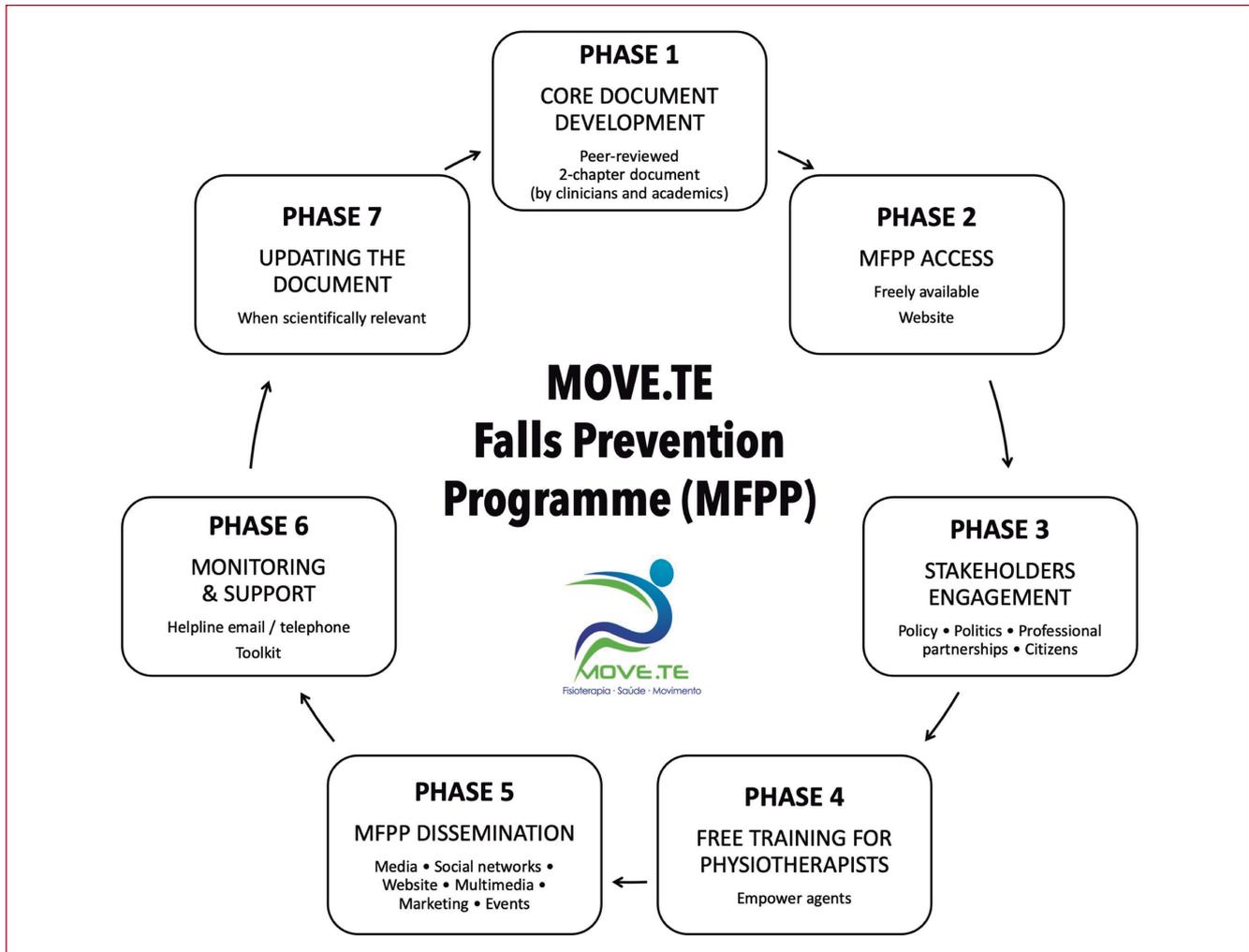


Figure 1. MFPP 7-phase process.

the implementation of documented best practices and guidance<sup>8</sup>. This latter problem has been frequently reported by several authors<sup>9,10</sup>, suggesting it may take up to 17 years for research evidence to reach clinical practice, reinforcing the need for projects like ours to reduce the “know-do” gap.

This situation had resulted in the lack of falls prevention and management guidance and policies for physiotherapists working in primary care in Portugal. The little available best practice showed geographical heterogeneity<sup>8</sup>. There was also a gap in knowledge translation, with physiotherapy research not being effectively implemented in clinical practice<sup>8</sup>.

In this context, the MOVE.TE Falls Prevention and Management Programme (MFPP) emerged as the first Portuguese non-profit participatory physiotherapy platform. Using a bottom-up approach, it promotes reflection about primary healthcare policies, encouraging translational knowledge strategies to inform person-centered strategies. Its main goal was to facilitate the development of freely

available evidence-based physiotherapy guidance, working in partnership with the national health system and advocating for patients’ right to benefit from the highest standards of physiotherapy care in Portugal.

The aims of this short communication are to describe the development of the MFPP document and reflect upon the first three years of its implementation.

### Process

The MOVE.TE platform comprises a group of 14 physiotherapists, integrated in the project at different stages, based in different primary healthcare settings and three higher education institutions in Portugal. In 2016, the original working group decided to develop a platform where clinicians could access evidence effectively, thus becoming civic, clinical, scientific, and policy partners to the Portuguese health system.

Falls prevention and management was prioritized by the original working group. Several aims were identified in developing this guidance: to make the existing high-quality evidence easily available to practitioners; have a common language; use a common set of physiotherapy outcome measures; guarantee common indicators for data collection; communicating with the different stakeholders involved in preventing falls in similar ways across the country; monitor and support the implementation of the program; and effectively disseminate the obtained results<sup>8</sup>.

In order to satisfy these, a seven-phase process was defined (Figure 1).

### **Phase 1. Core document development**

A two-chapter book was produced. Chapter 1 focused on the physiotherapist's role in a falls prevention program, the existing and desirable referral systems, and the data reporting pathway for falls within primary healthcare. Chapter 2 focused on up-to-date evidence regarding falls prevention assessment and intervention. Document validity oriented the development process.

Two expert panels were formed, one with health system experience (clinicians), and the other with research experience (academics), responsible for developing chapters 1 and 2, respectively. An analysis of the experience of working in the existing health model was performed, and a new pathway for physiotherapy' falls prevention proposed, based on reality and international models<sup>11</sup>. Simultaneously, an in-depth literature review on falls prevention was performed, integrating existing research results from Portugal (the FallSensing Project)<sup>12</sup>. This resulted in a draft of the core document, which was independently revised by all nine physiotherapy departments at Portuguese public higher education institutions. Peer-reviewers' comments were analyzed and discussed. The final document was edited and published online<sup>13</sup>. This process lasted from November 2016 until October 2017.

### **Phase 2. Disseminating the guidance**

A website was created (<https://movetesaude.wixsite.com/move-te>) to facilitate access to the information on the MOVE.TE platform and, upon registration by physiotherapists, to the free Falls Prevention Programme.

### **Phase 3. Stakeholders engagement**

The program was presented at a free public event where policy makers, stakeholders, health professionals, and the general public were invited to participate. The Health Secretary of State, five representatives of the Regional Health Administrations, the Director of the National Physical Activity Program, the Vice-president of the Health General Directorate, and a representative of the Nonprofit Organizations' Association and the Healthy Cities Network took part.

### **Phase 4. Free training for physiotherapists**

Three free workshops were organized for physiotherapists in attendance focusing on training the use of outcomes measures in falls risks assessment, and applying the general principles of falls prevention and management. Ninety physiotherapists attended these.

### **Phase 5. Dissemination**

Several strategies were devised to guarantee the dissemination of the MFPP. Public dissemination using traditional media was achieved via public television and two cable channels, a local newspaper, and a physiotherapy podcast. Social network accounts were created and continuously updated, to bring institutional and formal content closer to young physiotherapists and the general public. A newsletter was also developed to allow structured and homogeneous formal communication. Additional website information included the mission, team presentation and contacts, platform rules, an organizational chart, multimedia area, FAQs, events, publications, education, and partners. A logo was created to provide a uniform and clear image for the program. As the Falls Prevention Program was gradually implemented, further multimedia material was created for the YouTube channel, including interviews with implementing physiotherapists, where they explained their own process, identified difficulties, and gave tips to potentially interested colleagues. Finally, members of the team attended 15 national and international scientific and professional events, seeking to stimulate the dissemination of the program and its scientific discussion. Three scientific posters were presented at these events.

### **Phase 6. Monitoring and support**

In order to support implementation of the program, a support toolkit was created and made freely available for registered physiotherapists. It included an informed consent form, a preset database, a technical datasheet and calculation algorithm for key functional indicators, a project summary sheet for partners, program presentation templates, data and monitoring sheets, tutorial videos, and an implementation flowchart.

An email and telephone helpline was also set up to assist MFPP implementation. This support method sought to overcome barriers and facilitate the adaptation of national regulations to the specific characteristics of different contexts and communities. Support was provided for the design of implementation strategies and workplans with local partners, technical support at the level of outcome evaluation systems, and free publicity for initiatives either through the MOVE.TE newsletter or via the website and social networks.

### **Phase 7. Updating the document**

The document is currently being updated with the latest evidence on the contents of the programme. Updates are planned every three years, assuming resources are available.

## Discussion and future directions

By the end of 2019, the platform's website has had over 4,200 visits hits, there were 2,800 followers on social networks, with a total range of over 51,000 people in 2019. Access to the programme has been granted to 171 physiotherapists via the password-protected website, 14 of whom proceeded to implementation, with five primary care sites currently doing so.

Several strengths, weaknesses, facilitators and barriers were identified after a thorough interactive reflexive process by team members.

One of the main strengths is the openness to establishing working collaborations and partnerships between practitioners and academics within the Portuguese physiotherapy context. An Agreement was signed between all public Portuguese health schools and the MOVE.TE platform stating the commitment to promote knowledge exchange between academics and practitioners. Two examples could be: (a) an official protocol was established by three public health schools to rollout evidence based practice courses for physiotherapists (e.g OTAGO Exercise Programme-Cascade Training Network); (b) a database was developed in order to allow data collection in clinical practice, which could be returned to academics for further analysis and community based research. In other hand, the willingness of physiotherapists to collaborate towards a public health priority, together with available freeware web-based technologies, has enabled the development of such an initiative without any allocated funding. Social media has also played a critical role in engaging physiotherapists and the general public with this initiative.

One of the main facilitators was the perception held by the MOVE.TE team of a real opportunity to achieve a meaningful change in falls among older people. Equally helpful was the collaboration of all the public higher education institutions at which physiotherapists are educated in Portugal in the revision and validation of the document. In addition, web-based technology, particularly freeware platforms, were significant facilitators. These online resources greatly contributed to the national dissemination, implementation, and monitoring of the program.

However, implementation of the program by physiotherapists working in clinical practice has been challenging, as the low number of implementers indicates. Some of the barriers to wider implementation may involve the low awareness that some physiotherapists and other health professionals have about the effectiveness of community programs and, for primary care workers, of the impact of falls among the older population and their own potential as actors of change in falls prevention. Furthermore, although the core document was freely available, it was lengthy and dense, requiring time and specific competence to understand and interpret, which may have limited its use. The lack of funding for the MOVE.TE platform also limited the possibility of feasible support

during the implementation and monitoring phases. Further training for the physiotherapists would have been beneficial, but the lack of funding became a constraint. Monitoring of the program's use in clinical practice currently relies on voluntary self-reporting by physiotherapists; this may cause underreporting. Additionally, as those with access can share the program with third parties, this makes it difficult to implement a national monitoring and follow-up system.

Last but not least, the lack of flexibility of the established work pathways, and resistance to change in a very hierarchically structured National Health System, result in a very small ratio of physiotherapists/population (12.5 physios per 100,000 citizens), and low levels of direct contact between physicians and physiotherapists. These factors can also be understood as barriers to the implementation of a new program involving different processes.

Three years have now passed, and we can confidently state that independent initiatives by health professionals within the field of participatory citizenship can result in effective and resourceful solutions to many of the problems faced by the National Health System. Our work model was successful in establishing links between academia and clinicians, raising awareness among Portugal-based physiotherapists of falls prevention and management, and among other health professionals regarding the role of physiotherapy within this field.

The transferability of this good practice requires strategic planning as a critical step towards the success of community programs. Therefore, initial reflection should include stakeholders from different fields and regions, which in this case took place at a later stage. The discussion of screening, stratification, referrals, evaluation, monitoring, and reassessment methodology is crucial to ensure the effective feasibility of a falls prevention program, as otherwise there is a risk of geographic and cultural contexts becoming barriers to a well-defined program from a theoretical point of view.

The sustainability of such initiatives depends on their funding, since regular updating of the latest evidence and regular training opportunities for health professionals is required. We provided free training at the launch of the project, but can now see that this was perhaps insufficient. Raising awareness among stakeholders and users will help to disseminate this program.

This project constitutes an interesting example of advocacy in physiotherapy for the promotion of better healthcare for older adults. It also demonstrates that physiotherapists and academics can collaborate to enable translational knowledge strategies in order to respond to citizens' needs in primary care within the Portuguese context. However, this three-year experience also suggests that influencing formal healthcare services requires additional political, technical, and financial resources and strategies.

## References

1. Direção-Geral da Saúde IfHMaE. Portugal: The Nation's Health 1990–2016: An overview of the Global Burden of Disease Study 2016 Results. In: DGS, editor. Seattle, WA: IHME; 2018.
2. Global, regional, and national age-sex-specific mortality for 282 causes of death in 195 countries and territories, 1980-2017: a systematic analysis for the Global Burden of Disease Study 2017. (1474-547X (Electronic)).
3. Contreiras T. RE. Evita – Epidemiologia e Vigilância dos Traumatismos e Acidentes: relatório 2009 - 2012. Lisboa, PORTUGAL: Ministério da Saúde. Instituto Nacional de Saúde Doutor Ricardo Jorge (INSA, IP); 2014.
4. DGS D-GdS. Programa Nacional de Prevenção de Acidentes. In: Saúde DdSdPePd, editor. Lisboa, Portugal: Ministério da Saúde; 2010. p. 54.
5. EUROSAFE. EuroSafe: Injuries in the European Union, Summary on injury statistics 2012-2014. Amsterdam, The Netherlands: European Association for Injury Prevention and Safety Promotion; 2016.
6. SNS SNdS. Estratégia Nacional para o Envelhecimento Ativo e Saudável 2017-2025. Lisboa, Portugal: Direção-Geral da Saúde; 2017. p. 52.
7. Sherrington C, Tiedemann A. Physiotherapy in the prevention of falls in older people. *Journal of Physiotherapy*. 2015;36.
8. Casaca AS, AL. Rodrigues, AM. Silva, AR. Martins, A. Brito, A. Canhoto, C. Vital, E. Gomes, J. Teixeira, J. Gomes da Silva, M. Santos, PC. Pereira, P. Maciel Barbosa, P. Moniz, R. Vicente, S. Grupo de Trabalho Fisioterapia nos Cuidados de Saúde Primários. Proposta para Promover a Resolutividade dos Cuidados de Saúde Primários e Assegurar Cuidados de Fisioterapia. . In: Primários CaoNpaRdSnardCdSd, editor. Lisboa: Ministério da Saúde; 2016.
9. Morris ZS, Wooding S, Grant J. The answer is 17 years, what is the question: understanding time lags in translational research. *J R Soc Med* 2011;104(12):510-20.
10. Green LW, Ottoson Jm Fau - García C, García C Fau - Hiatt RA, Hiatt RA. Diffusion theory and knowledge dissemination, utilization, and integration in public health (1545-2093 (Electronic)).
11. Avin KG, Hanke TA, Kirk-Sanchez N, McDonough CM, Shubert TE, Hardage J, et al. Management of Falls in Community-Dwelling Older Adults: Clinical Guidance Statement From the Academy of Geriatric Physical Therapy of the American Physical Therapy Association. *Physical Therapy* 2015;95(6):815-34.
12. Martins AC, Moreira J, Silva C, Silva J, Tonelo C, Baltazar D, et al. Multifactorial Screening Tool for Determining Fall Risk in Community-Dwelling Adults Aged 50 Years or Over (FallSensing): Protocol for a Prospective Study. *JMIR Res Protoc* 2018;7(8):e10304-e.
13. Casaca AS, AL. Silva, AR. Martins, A. Pinto, B. Argel de Melo, C. Gomes da Silva, M. Santos, PC. Maciel Barbosa, P. Pereira, P. Moniz, R. Fisioterapia na prevenção de quedas do adulto mais velho: Proposta de Modelo de Intervenção nos Cuidados de Saúde Primários. Setúbal ESdS-IPd, editor. Setúbal 2017.