

The participatory teaching approach to stimulate lifelong learning

L'approccio didattico partecipativo per stimolare l'apprendimento permanente

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Abstract

The Learning Cities paradigm, promoted by Unesco, conceives the city as a widespread educational ecosystem. In this context, training in Rehabilitation Sciences can experiment with teaching methodologies capable of strengthening professional skills and active citizenship, in line with the ICF's bio-psycho-social model. The study evaluated the effectiveness of a participatory intervention compared to traditional classroom teaching, involving approximately 100 students (aged 25-30) divided into a control group and a sample group. A mixed-methods design was adopted. The quantitative tools used were the Civic Engagement Scale and the General Self-Efficacy Scale, while the qualitative tools used were semi-structured interviews with the sample group. The quantitative results showed greater increases in the sample group in both civic engagement and self-efficacy. The interviews highlighted that the sample group experienced learning as more relational and transformative, with greater collaboration and awareness of their role in the community, while a more theoretical and individualistic view prevailed in the control group.

Keywords: Learning City; lifelong learning; participatory methodologies.

Sintesi

Il paradigma delle Città che apprendono (Learning Cities), promosso dall'Unesco, concepisce la città come un ecosistema educativo diffuso. In questo quadro, la formazione nelle Scienze Riabilitative può sperimentare metodologie didattiche capaci di rafforzare competenze professionali e cittadinanza attiva, in coerenza con il modello bio-psico-sociale dell'ICF. Lo studio ha valutato l'efficacia di un intervento partecipativo rispetto a una didattica tradizionale frontale, coinvolgendo circa 100 studenti (25-30 anni) suddivisi in gruppo di controllo e gruppo campione. È stato adottato un disegno mixed-methods. Gli strumenti quantitativi utilizzati sono stati la Civic Engagement Scale e la General Self-Efficacy Scale, invece gli strumenti qualitativi usati sono stati interviste semi-strutturate al gruppo campione. I risultati quantitativi hanno mostrato incrementi maggiori nel gruppo campione sia nel coinvolgimento civico sia nell'auto-efficacia. Le interviste hanno evidenziato un apprendimento vissuto come più relazionale e trasformativo, con maggiore collaborazione e consapevolezza del proprio ruolo nella comunità, mentre nel gruppo di controllo è prevalsa una visione più teorica e individuale.

Parole chiave: città che apprende; apprendimento permanente; metodologie partecipative.

1. Introduction

The concept of Learning Cities emerged in the 2000s, but it was not until 2004 that it was actually implemented in the Irish city of Cork through an event called the 'Learning Festival'. The event aimed to promote learning in all its forms, encouraging citizens not only to attend the activities on offer, but also to participate actively – hence the motto, 'Investigate, participate, celebrate!'. This event was the first attempt to turn the idea of a city where learning is a shared, widespread process accessible to all into reality (Kearns et al., 2013).

Subsequently, Unesco provided a more precise definition of Learning Cities, describing them as a model for sustainable urban development based on the idea that learning should be continuous, inclusive, and accessible throughout life (Unesco, 2015). This concept rejects the idea that learning should be confined to formal educational contexts, instead extending it to informal and non-formal spaces within the city. This creates a dynamic ecosystem of knowledge, where educational institutions, health services, local administrations, communities, and citizens all contribute to the production and sharing of knowledge.

Several studies have also explored how Learning Cities are implemented through collaborations between educational institutions, local authorities, community organisations and civil society. In particular, research on the Irish Learning Cities experience highlights the importance of cross-sector partnerships and community engagement in promoting lifelong learning ecosystems at the local level (Longworth, 2006; Osborne et al., 2013).

From this perspective, the role of citizens changes. They are no longer viewed as passive recipients of interventions, but as active participants capable of contributing to the development of shared solutions to the community's emerging needs. For this reason, learning cities are committed to providing lifelong learning opportunities for their inhabitants, in various forms and across a range of areas, in order to respond adequately to a wide variety of needs.

It is in this context that lifelong learning also becomes important in the training of healthcare professionals. In an era characterised by rapid technological, demographic and healthcare changes, the transformation of welfare systems and the increasing complexity of healthcare needs require professionals who can continuously update their technical skills and work collaboratively, reflectively and, above all, in a community-oriented manner. In the field of Rehabilitation Sciences for Healthcare Professions in particular, there is a need to integrate clinical knowledge with relational, communicative and participatory skills in line with the bio-psycho-social model and health promotion approach (Kickbusch, 2019; WHO, 2001).

In this context, participatory evaluation methodologies are innovative tools that align with the Learning Cities paradigm. These methodologies are based on the idea that evaluation is a social and dialogical activity in which various stakeholders, such as students, citizens, professionals and institutions, actively participate in defining objectives and indicators, and interpreting results (Cousins & Whitmore, 1998).

Directly involving citizens and university students in evaluation processes enhances experiential knowledge, increases the social relevance of educational interventions, and promotes individual and collective empowerment (Wallerstein, 2006).

Similar approaches are discussed in the literature on community-university partnerships, which emphasises the role of higher education institutions in fostering civic engagement

and collaborative knowledge production within local communities (Bringle & Hatcher, 2002; Saltmarsh et al., 2009). In a university context, particularly in Rehabilitation Sciences courses, such an approach promotes active learning, reflection and social responsibility, thereby strengthening the university's role as a key player in the Learning City.

In this perspective, the adoption of participatory methodologies for assessment in healthcare training contexts not only contributes to improving the quality of learning, but also represents an effective strategy for promoting active citizenship, lifelong learning and health-oriented urban development.

Although participatory and constructivist educational approaches are well established in the literature, their application within university programmes in Rehabilitation Sciences and their integration with the Learning Cities framework remain relatively underexplored. The contribution of this study therefore does not lie in the introduction of entirely new pedagogical theories, but rather in the contextualised combination of established approaches – such as experiential learning, collaborative learning and participatory evaluation – within the specific field of healthcare professional training. By connecting these educational practices with the Learning Cities paradigm, the study aims to explore how university training can simultaneously support professional competence development and civic engagement.

2. Aims of the research

This study aims to investigate the effectiveness of an educational intervention that combines established participatory and experiential learning methodologies within a university context, focusing specifically on the training of Rehabilitation Sciences students in the Health Professions. Firstly, the research will assess the extent to which this intervention can promote active civic engagement among university students, considering them as future professionals and informed citizens within the City of Learning. This is in line with Unesco's promotion of lifelong learning and civic participation (Longworth, 2006; Unesco, 2015).

At the same time, the study aims to investigate the impact of the intervention on perceived self-efficacy by analysing whether active participation in innovative teaching methods can increase students' confidence in tackling complex tasks and new situations. This dimension is particularly relevant in healthcare training, where self-efficacy is a key factor in learning, professional practice, and adapting to complex contexts (Bandura, 1997; Schwarzer & Jerusalem, 1995). Alongside the quantitative analysis, the study will explore students' subjective perceptions of their active role as citizens through qualitative tools, investigating the meaning they attribute to the educational experience within the paradigm of the Learning City and lifelong learning processes (OECD, 2018).

Finally, the study aims to verify whether the proposed participatory activities promote the development of collaborative skills and social awareness. These skills are consistent with the principles of the biopsychosocial model and health promotion, which emphasise the active role of health professionals in community and participatory contexts (Kickbusch, 2019; WHO, 2001).

3. Tools

This research was conducted using a mixed-methods approach, employing both quantitative and qualitative tools. This approach was chosen because it provides a powerful tool for investigating complex processes and systems in healthcare and social care (Kajamaa et al., 2020).

Furthermore, combining quantitative and qualitative tools provides a clearer, more defined view of the phenomenon under study, thanks to objective, measurable data, as well as subjective perceptions, experiences, and meanings attributed by participants.

Regarding the quantitative tools used, these were the Civic Engagement Scale (CES) and the General Self-Efficacy Scale (GSES).

Doolittle and Faul (2013) developed the Civic Engagement Scale to assess changes in active participation among students following an educational intervention. The CES was developed in response to concerns about young people's lack of participation in community service. For this reason, we wanted to investigate how students are encouraged to engage with their local communities.

Widely used in educational contexts and with young adult populations, the scale consists of 14 items organised on a five-point Likert scale, allowing for the measurement of different dimensions of civic engagement and social participation.

At the same time, to measure general perceived self-efficacy, the General Self-Efficacy Scale (GSES) by Schwarzer and Jerusalem (1995) was administered. This is an internationally validated tool, translated into 32 languages and widely used in education and healthcare. The tool consists of 10 items, with responses provided on a four-point scale (1 = not at all true, 4 = completely true). This tool allows students' perceptions of their ability to successfully tackle complex tasks, new situations and emerging difficulties to be assessed.

In addition to quantitative tools, the study also used qualitative tools. In particular, semi-structured interviews were conducted with students in the sample group to understand their perception of the impact of the educational intervention, their level of awareness of their role as active citizens within the Learning City, and the development of their collaborative skills. The interviews also made it possible to gather critical assessments of the participatory activities proposed, providing useful interpretative elements to integrate and deepen the results emerging from the quantitative analysis.

4. Sample selection

The study was conducted at the "Luigi Vanvitelli" University of Campania. More specifically, the research involved students enrolled in degree courses at the Faculty of Rehabilitation Sciences and Health Professions, aged between 25 and 30. Approximately 100 students participated, divided into:

- a control group, which took part in an educational intervention focused on traditional classroom teaching;
- a sample group, which took part in an innovative educational intervention focused on participatory teaching activities.

To strengthen the methodological rigor of the study, the allocation of students to the control group and the sample group followed a random assignment procedure. After confirming voluntary participation and eligibility according to the inclusion criteria, participants were randomly distributed between the two groups in order to reduce potential selection bias and increase the internal validity of the comparison between the traditional and participatory teaching approaches. This procedure ensured the baseline comparability of the two groups in terms of age, course of study and academic year, in line with methodological guidelines for educational and health research (Creswell & Plano Clark, 2018).

The inclusion criteria for the study were defined on the basis of ethical and methodological considerations widely recognised in the literature. Firstly, voluntary participation was considered a fundamental requirement in order to avoid students perceiving an externally induced obligation and to ensure genuine and informed involvement, as recommended in the ethical principles of research in education and healthcare (WMA, 2013).

Secondly, enrolment at “Vanvitelli” University and the Faculty of Rehabilitation Sciences and Health Professions was required in order to ensure that the sample was consistent with the research objectives and the educational context of reference. Finally, attendance at least 50% of the scheduled meetings was set as an inclusion criterion, a condition deemed necessary to ensure sufficient exposure to the educational intervention and a reliable assessment of its effects, in accordance with the literature on the effectiveness of training interventions (Kajamaa et al., 2020).

5. Activities

The educational intervention took place during the first semester of the academic year, as part of the winter session, and was designed to be an integral component of the students’ training programme. The eight-week intervention consisted of two weekly two-hour meetings, allowing for educational continuity and progressive student involvement in the activities proposed. This timeframe was considered appropriate for facilitating both the acquisition of theoretical content and experimentation with participatory and reflective practices. All activities were conducted in a classroom setting within the university; however, they were designed to encourage students to analyse and reflect on community health needs within an urban context.

The activities were carried out differently for the two groups.

The control group followed a traditional classroom-based teaching programme focused mainly on the transmission of theoretical content. The teacher guided the learning process by providing explanations and clarifications of key concepts, as well as in-depth analyses of the main theoretical and regulatory references relating to the topics covered. For oral explanations, the teacher used slides, reference texts and selected teaching materials. Students were given the opportunity to ask questions for clarification. However, these interactions were mainly limited to brief exchanges of information without collaborative activities or small-group work. Students were asked to study the class content individually to consolidate their theoretical knowledge. Assessment was based mainly on understanding of the theoretical content, in line with traditional teaching methods. This approach reflects the key concept of behaviourism: a pedagogical approach in which learners are viewed as empty vessels to be filled through frontal explanation (Hinduja, 2021).

This approach enabled a consistent and standardised teaching method to be maintained, ensuring stability and uniformity in the training programme. The control group thus provided an appropriate benchmark for evaluating the impact of the innovative, participatory educational intervention offered to the sample group.

By contrast, the sample group adopted a constructivist pedagogical approach, with the primary aim of promoting student-centred learning during the intervention. Constructivism also appeared to align with the concept of Learning Cities, emphasising that learning can occur within a broader social context rather than exclusively through formal instruction (Hinduja, 2021).

The sample group was therefore involved in an innovative educational intervention based on the systematic use of participatory methodologies consistent with the Learning Cities paradigm and the principles of active and collaborative learning. From the outset, students were encouraged to play an active role in the learning process and contribute directly to knowledge construction, in line with constructivist and socio-constructivist approaches to learning (Hinduja, 2021; Vygotsky, 1978).

In particular, the intervention was divided into three types of activities.

The participatory practical workshops aimed to co-design potential health promotion interventions related to the urban context. During the workshops, students worked in small groups, discussing emerging community needs, analysing concrete cases and proposing possible solutions oriented towards rehabilitation and social inclusion. These activities were conducted through classroom discussions and case analyses rather than through direct interaction with community partners. This type of activity is based on the principles of experiential learning, which values learning through direct experience and critical reflection (Kolb, 1984), and is particularly effective in the training of healthcare professionals, where theory and practice must be integrated. In this context, the teacher took on the role of facilitator, supporting the learning process without imposing predefined solutions. In experiential learning, the learner actively develops ideas through reflection and interaction. According to this theory, ideas are not fixed and immutable elements of thought but are continuously formed and reformed through experience (Kolb, 1984).

Collaborative brainstorming sessions were used both for the shared analysis of urban, social and health issues and for the collective exploration of possible intervention strategies. These activities stimulated discussion, the exchange of views and the development of communication and decision-making skills, allowing students to experiment with working methods typical of multidisciplinary professional contexts. The use of collaborative brainstorming is widely recognised in the literature as an effective tool for promoting critical thinking, creativity and cooperative learning (Johnson & Johnson, 2009; OECD, 2018).

Storytelling activities invited students to narrate and reflect on their experiences in the city as citizens and future healthcare professionals. Narratives served as a tool for exploring the meanings attributed to learning, participation and inclusion, allowing students to connect personal experiences to broader social and professional contexts. Storytelling is recognised as an effective methodology in educational and healthcare contexts for promoting reflection, empowerment and the construction of shared meanings (Greenhalgh & Hurwitz, 1999; Wallerstein, 2006).

Overall, the educational intervention implemented with the sample group aimed to create an open, dialogical and participatory learning environment. Within this framework, the city was interpreted primarily as a conceptual and experiential reference context for reflection

and analysis rather than as a direct field of intervention. Through classroom-based participatory activities such as workshops, collaborative brainstorming and storytelling, students were encouraged to analyse community needs, discuss possible health promotion strategies and reflect on their potential future role as professionals within an urban and community-oriented context. In this sense, the city was approached as an extended educational space in symbolic and analytical terms, allowing students to connect academic learning with the social realities that characterise contemporary urban environments, in line with the principles of Learning Cities promoted by Unesco (2015).

6. Results

6.1. Quantitative data analysis

Quantitative data analysis was conducted by comparing the scores obtained in the pre-intervention phase (T0) and in the post-intervention phase (T1) for both the control group and the sample group. Descriptive statistics (mean $\pm$ standard deviation) were first calculated to describe the baseline values and the changes observed after the educational intervention.

To determine whether the differences observed between the two groups were statistically significant and not attributable to random variation, inferential statistical analyses were performed using independent-samples t-tests comparing the change scores between the control and the sample group. The level of statistical significance was set at $p < .05$.

At baseline (T0), the two groups showed comparable values for both civic engagement and perceived self-efficacy, indicating an initial balance between the groups.

Regarding civic engagement, measured through the Civic Engagement Scale (CES), the sample group reported a baseline mean score of $M = 3.18 \pm 0.47$, while the control group showed a similar value ($M = 3.16 \pm 0.45$). After the intervention (T1), the sample group reached an average score of $M = 4.02 \pm 0.49$, corresponding to an improvement of approximately 25–30%, whereas the control group increased more modestly to $M = 3.39 \pm 0.44$, corresponding to an improvement of approximately 5–8%. Statistical comparison showed that the increase observed in the sample group was significantly greater than that of the control group ($p < .05$).

A similar pattern emerged with regard to perceived self-efficacy, measured using the General Self-Efficacy Scale (GSES). At baseline (T0), the sample group reported an average score of $M = 2.87 \pm 0.38$, while the control group showed a comparable value ($M = 2.85 \pm 0.40$). Following the educational intervention (T1), the sample group increased to $M = 3.48 \pm 0.42$, corresponding to an improvement of approximately 20–25%, whereas the control group reached $M = 3.04 \pm 0.39$, corresponding to an increase of approximately 5–7%. The statistical comparison confirmed that the improvement observed in the sample group was significantly higher than that of the control group ($p < .05$).

Overall, the quantitative analysis indicates that students who participated in the participatory educational intervention experienced greater improvements in both civic engagement and perceived self-efficacy compared with those who followed traditional classroom-based teaching. These results suggest that participatory and collaborative teaching methodologies may positively influence not only learning outcomes but also students' perception of their role as active citizens and future healthcare professionals.

6.2. Qualitative data analysis

The qualitative data collected through semi-structured interviews were analysed using a thematic analysis approach, following the methodological framework proposed by Braun and Clarke (2006). This analytical procedure involved several stages: familiarisation with the interview transcripts, identification of meaningful units of text, coding of recurrent themes, and the development of broader interpretative categories related to students' perceptions of participation, collaboration and civic awareness. This approach made it possible to systematically interpret the narratives and to integrate the qualitative insights with the quantitative findings of the study.

The analysis of the interviews provided deeper insight into students' experiences and into the ways in which the educational intervention was interpreted and internalised by the two groups. The collected narratives clearly show that the intervention influenced not only what students learned, but also how they experienced the learning process and the meaning they attributed to it. In this sense, the differences between the control group and the sample group appear particularly relevant, especially regarding their relationship with learning, with peers, and with the broader community.

Students in the control group described the educational experience as structured, orderly and reassuring, with a strong emphasis on theoretical content. Learning was perceived as mainly individual and closely linked to studying materials, listening to explanations and preparing for examinations. Although many students recognised the importance of this approach for building a solid conceptual foundation, they also reported a certain distance between theoretical knowledge and the practical or relational dimensions of learning. The interviews revealed the image of a student who primarily receives knowledge rather than actively constructing it and who sometimes struggles to connect academic learning with their future professional and social role. In this context, active citizenship was generally perceived as an important concept, but mainly at a theoretical level and with limited connection to everyday university life.

In contrast, students in the sample group described learning as a more dynamic and engaging process. They portrayed the educational experience as one in which the learner plays an active role and is recognised not simply as a student, but as an individual capable of contributing to the learning process. Participatory activities were frequently described as opportunities to engage with others, listen to different perspectives and reflect on personal ideas. Many students emphasised that group work and continuous discussion fostered a sense of belonging and shared responsibility, making them feel part of a learning community.

Participatory workshops and collaborative brainstorming sessions were often mentioned as particularly valuable moments of the educational experience. According to the students, these activities created safe spaces for discussion in which even more reserved participants gradually felt confident enough to express their opinions. Students reported that they had learned not only to propose ideas but also to listen, negotiate and develop solutions collaboratively – skills that they considered fundamental for their future professional practice. In this process, the city itself was no longer perceived as a neutral backdrop, but rather as a context to observe, interpret and imagine possible health and social interventions.

Storytelling activities also played a particularly significant role in the learning experience. Through the narration of their experiences within the city, students were able to reflect on the knowledge they had acquired and to recognise the educational value of everyday

situations that are often taken for granted. These narratives enabled students to identify connections between personal experience, the urban context and their future professional role. As a result, many participants reported increased self-awareness and a clearer perception of their potential contribution to the community.

Overall, the qualitative findings highlight a substantial difference in the way the educational experience was perceived by the two groups. While students in the control group described learning as mainly confined to classroom explanations and individual study, those in the sample group perceived the experience as more transformative, influencing their identity, relationships and perception of the surrounding reality. These perceptions help explain why, alongside the quantitative improvements observed in civic engagement and self-efficacy, students in the sample group also demonstrated greater openness to participation, collaboration and active citizenship – key dimensions of lifelong learning and professional training in Rehabilitation Sciences.

7. Discussion

The results of the study suggest that an educational intervention based on participatory methodologies within the Learning Cities paradigm can have a tangible impact on both measurable learning outcomes and how students perceive their role in the community and their future professional practice. In line with Unesco's definition of a Learning City as a continuous, widespread and socially oriented learning ecosystem, the experience offered to the sample group appears to have strengthened the connection between university education, the urban context and active citizenship (Unesco, 2015). The difference between the two groups is not simply a matter of 'improved' scores; it appears to represent a change in the way learning is experienced, shifting from an individual, content-centred approach (control group) to a more relational, situated, and transformative approach (sample group).

From a numerical standpoint, the most significant increase in the sample for both civic engagement (CES) and perceived self-efficacy (GSES) lends weight to the notion that active participation and a sense of inclusion in shared processes can foster empowerment and self-efficacy. This is consistent with the literature on empowerment in healthcare, which suggests that participating in and influencing one's environment can promote personal and collective development (Wallerstein, 2006). At the same time, the increase in self-efficacy among the sample group is consistent with models that view self-efficacy as a key resource for overcoming complex challenges, tolerating uncertainty, and persevering in the face of adversity – all of which are relevant skills in healthcare and rehabilitation training and careers (Bandura, 1997; Schwarzer & Jerusalem, 1995).

The qualitative data reinforce the quantitative results. In interviews, students in the sample group described a change in the way they participated in activities, citing greater confidence in self-expression, an enhanced ability to collaborate with others and, above all, a sense of contributing to something beyond the exam or programme.

This aspect is particularly relevant in the training of Rehabilitation Scientists, as the bio-psycho-social model (ICF) highlights the importance of the interaction between individuals and their environment, as well as the significance of participation and environmental factors in health and functioning processes (WHO, 2001). In this sense, the idea of learning 'with' and 'within' the city aligns well with the need to train professionals who can interpret needs systemically, work in teams, and operate in complex community contexts.

At the same time, it is important to clarify that the educational intervention was implemented primarily within the university setting and did not involve direct interaction with community actors. In this study, the city was therefore approached mainly as a conceptual and analytical reference context that allowed students to reflect on social and health issues within an urban environment. This choice made it possible to explore the educational potential of the Learning Cities framework within a university learning environment.

Another issue that arose from the discussion is the consistency between the proposed activities and the observed outcomes. It is important to emphasise that the educational principles underlying this intervention are grounded in well-established pedagogical theories, including experiential learning, cooperative learning and socio-constructivist approaches. The contribution of this study therefore lies not in proposing entirely new educational models, but in demonstrating how these consolidated frameworks can be effectively integrated within Rehabilitation Sciences education and interpreted through the lens of the Learning Cities paradigm. In this sense, the study extends existing research by showing how participatory methodologies can simultaneously support professional learning and the development of civic awareness among future healthcare professionals.

The experiential learning-based workshops and group work seem to have fostered more embodied, less abstract learning, in which ideas are constructed and reworked through experience and reflection (Kolb, 1984). The brainstorming sessions and cooperative dynamics described by the students also reflect the principles of cooperative learning and social interdependence, supporting the development of communication, decision-making, and collaborative skills (Johnson & Johnson, 2009).

Finally, storytelling provided a space for meaning. Recounting experiences of living in the city enabled students to connect their personal experiences with educational content, thereby promoting reflection and awareness. These dimensions are recognised as being relevant to constructing meaning and professional learning in healthcare (Greenhalgh & Hurwitz, 1999).

However, it is also important to acknowledge that civic engagement in this study was primarily measured through students' perceptions rather than through direct forms of civic participation. This limitation is consistent with previous research showing that classroom-based interventions may strengthen civic awareness and attitudes even when they do not involve direct forms of community engagement (Doolittle & Faul, 2013; Saltmarsh et al., 2009). Although the educational activities encouraged reflection on community needs and the role of health professionals within urban contexts, they did not include concrete opportunities for students to engage directly with community organisations or local stakeholders. For this reason, the observed increase in civic engagement should be interpreted mainly as a development of civic awareness and attitudes rather than as evidence of direct civic action.

The integration of quantitative and qualitative results confirms the usefulness of the mixed-methods approach for capturing measurable outcomes and underlying processes, particularly when studying complex educational interventions in healthcare and social settings (Kajamaa et al., 2020). While the questionnaires demonstrated the extent of the change, the interviews clarified its direction and meaning: not merely 'more involvement' and 'more self-efficacy', but a different perception of learning as participation, collaboration, and responsibility towards the community. From this perspective, the university plays a pivotal role in the Learning City, equipping rehabilitation professionals

with the technical skills and social awareness necessary to address contemporary welfare system challenges and promote health (Kickbusch, 2019; Unesco, 2015).

8. Conclusion

In conclusion, the study provides valuable insights into the potential for incorporating educational courses into university rehabilitation training to familiarise students with the concepts of lifelong learning and social responsibility. It showed that a structured, continuous intervention included in the academic semester can achieve positive results and greater consistency between professional training and the urban context. This is in line with the concept of the Learning City as an extensive, inclusive educational ecosystem (Unesco, 2015). This approach is particularly significant for healthcare professionals, who need to combine technical skills with the ability to adapt, collaborate, and respond to complex and dynamic needs. This is in line with the biopsychosocial perspective, which emphasises the importance of context and participation in health processes (WHO, 2001).

At the same time, the study highlights a potential tension between the broader Learning Cities framework, which emphasises collaboration among multiple social sectors, and the university-based nature of the intervention described here. While the present study focused primarily on classroom-based educational activities, future developments could extend the intervention beyond the university by involving local institutions, community organisations and health services. Such collaborations would allow the Learning Cities approach to be implemented more fully and would strengthen the connection between university learning and community practice.

Despite the positive results obtained, it is important to recognise the limitations of the study. Firstly, the sample was recruited from a single university and a specific age group, which restricts the generalisability of the results to other degree programmes, age groups or universities. Furthermore, the nature of the educational intervention makes it difficult to fully control for variables related to individual motivation, differences between teachers, group dynamics, and each student's actual participation. These are typical aspects of complex training interventions which require evaluation approaches capable of considering procedural and contextual dimensions too (Cousins & Whitmore, 1998). Another limitation is the measurement method: although the validated scales used are reliable, questionnaires are self-assessment tools and are therefore susceptible to social desirability bias or subjective interpretation of the items, particularly when investigating constructs related to perceptions of competence and personal agency (Bandura, 1997; Schwarzer & Jerusalem, 1995). Finally, while eight weeks is sufficient to detect short-term changes, it does not allow us to determine whether these changes are stable over time. In terms of future prospects, it would be beneficial to expand the research by conducting multicentre studies involving multiple universities and more diverse samples. This would help to verify the replicability of the intervention and its adaptability to different educational contexts. One significant step would be to conduct a follow-up after a few months to observe the persistence of the effects and the transferability of the acquired skills, including in internship or clinical practice contexts. This would be in line with the need to develop long-term, continuous learning skills (OECD, 2018). Furthermore, to strengthen the evaluation, data collection could be combined with more 'observable' indicators, such as collaborative skills assessment rubrics, group work records, project outputs, or evidence of participation in local activities. This would strengthen the link between declared learning and actual

behaviour. This approach is in line with the need to integrate measurable data and experiential dimensions in health and social contexts (Kajamaa et al., 2020).

Finally, the project could naturally evolve to involve external actors (local services, associations and citizens) more directly, strengthening the university's connection to the city and local area. This would enable a broader assessment of the educational and social impact of the intervention, in line with Unesco's (2015) vision of a learning city.

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