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# Home Physiotherapy: The Relevance of Social Determinants of Health in the Development of Physiotherapy in the Home Environment

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## 1. Introduction

The current demographic, family and socio-sanitary trends require that many countries have to increase their effort for the delivery of health care at patient's home (World Health Organization [WHO], 2008). Among the services to be provided in the home is physiotherapy. This chapter will discuss some of the aspects that influence physiotherapy when performed in this particular domain, with special attention to the social determinants of health. The influence of social determinants of health has been given a significant emphasis in health promotion research in recent years, as well as in studies aimed at improving equity in health services.

In the first part of this chapter, the concepts of social determinants of health, equity in health, home care and home physiotherapy will be described. This will serve as the basis for the second part, a qualitative research project aimed at uncovering the perspectives of physiotherapists working in Primary Health Care about home physiotherapy. This is addressed to determine the varied influences of the physiotherapy intervention at home and its results. The relevance of the family-centred approach in home care requires a broader analysis of physiotherapy, highlighting the multi-dimensionality of home physiotherapy. This research cannot be generalised but elements may be transferred to similar contexts.

## 2. Social determinants, equity and health

It is widely acknowledged that health is a multi-dimensional concept, and therefore transcends the mere absence of illness. The personal experience of health and wellbeing is influenced by several determinants, including the social determinants of health. The influence of social and environmental factors on health is not a recent concept, but the contribution of these social factors in achieving equity in health, requires a holistic approach to current health policies. The health care services must focus on the different health needs of the population in question. This implicates a great challenge for health professionals and policy makers to develop truly equitable health systems.

The consideration of health as a multi-dimensional phenomenon that does not depend exclusively or predominantly on the access to the specialised health services has brought

important advances in the field of community health. Among them, the demystification of technology as a panacea to solve all illnesses, the consideration of disciplines beyond medicine and the recognition of the need for an interdisciplinary approach in health care. The model of health care has to focus on the health needs of people, understanding that they are influenced by many variables. This perspective highlights the changes required towards equity in health services, where a balance must be struck between the services offered and the ability to achieve them.

The social determinants of health are the conditions in which people are born, grow, live, work and age, including their relationship with the health system. The social determinants of health are mostly responsible for health inequities, the unfair and avoidable differences in health status seen within and between countries (Whitehead, 1988; Whitehead & Dahlgren, 2007). Within countries, the evidence shows that in general the lower an individual's socioeconomic position, the worse their health. There is thus a social gradient in health that runs from top to bottom of the socioeconomic spectrum. This is a global phenomenon, seen in low, middle and also higher income countries.

## **2.1 Social determinants of health**

A consideration of health from a systemic perspective has implications for the organisation of health systems. The determination of the influence of contextual conditions such as housing, hygiene or working conditions have been the origins of public health, particularly during the industrial revolution.

In past decades there were attempts on behalf of the scientific community to demonstrate the multi-causal, ecological and systemic approaches to health. Nevertheless, health sciences have been clearly influenced by the theory of specific etiology of disease, which was in full agreement with the positivist paradigm of modern science (Anderson, 1998). Although this biomedical approach has been an educational and clinical source of intense criticism, its influences are routed in most of the academic curriculum of health professionals, where the biological factors of illness have greater relevance in their education than other cultural or social issues related to health.

However, recent concerns about equity in health are highlighting the diversity in health needs of the population. To achieve an equitable health system it is of utmost importance to identify the relationships between the health status and the influence of diverse determinants to it. At this point, beyond on the discussion about how to promote healthy lifestyles in the population, the current questions address how the social determinants of health impact in the adoption of healthy lifestyles. The approach to the social determinants of health means that social and economic status may influence the overall health status and the access to health care. Therefore, if the etiology of illness is focused on the cause of the illness, the social determinants of health are commonly described as “the cause of the cause”, meaning the underlying social factors that contribute to health.

The recognition of the negative effects of the social determinants of health are being embraced by governments and are beginning to inform social and health policy. Some international events show the relevance of the social determinants of health on current discussions about what influences health. As an example, during the World Health Organisation Assembly held in 2004 the need to establish the Commission on Social

Determinants of Health (CSDH) was announced, which became operational in March 2005. This commission had the aim to generate recommendations that, based on the available evidence of the influence of social determinants in the health status of the population, could support interventions and policies to improve health and reduce health inequalities. The Pan American Health Organization (PAHO), has also turned its attention to this issue, led by countries such as Brazil and Chile, among others. During the annual meeting of the WHO/PAHO in September 2006, the agenda included discussion on the question of the determinants of health.

Some of the areas of discussion include the social gradient, stress, childhood living conditions, social exclusion, working conditions, unemployment, social support, addiction, access to food and transportation, among others (Lynch et al., 2000; Marmot & Wilkinson, 1999; Wilkinson & Marmot, 2003; Marmot, 2004; Whitehead & Dahlgren, 2007). Some of these concepts are explained below.

- Social Gradient: This concept refers to the different socioeconomic levels in a society. It can be explained with the image of a ladder. From the bottom to the top, each rung of the ladder indicates a socioeconomic level, where more disadvantaged groups are typically found on the lower rungs of the ladder. The existence of these social inequities in almost all countries poses the most serious change to improving the health of the population in general. The magnitude of the inequity experienced within a country will hold back other outcomes such as the advances in life expectancy.
- Social Exclusion: Social exclusion is the outcome of a loss of connection to the community in which one lives. Social exclusion is characterised by smaller social networks, fewer close relationships and reduced social support. Increased social interaction and participation in one's community perpetuates a sense of belonging and social connectedness. Both aspects have been linked to positive physical and psychological wellbeing, so their absence may have negative consequences.
- Living conditions: Living conditions may have a relevant impact on people's experience of health and wellbeing. The cost of privately renting suitable housing has a major impact on disadvantaged populations.
- Working conditions: Differences in exposure to unhealthy working conditions across the social spectrum is related to differences in the health status between socioeconomic groups.
- Access to Food: Access to nutritious food and clean drinking water is also vitally important for people's health and wellbeing, particularly in early life. A shortage of a variety of fresh healthy food is known to contribute to morbidity. However, processed and less healthy food outlets are often clustered within lower socioeconomic areas.
- Early life factors: The quality and of the environment in which a child lives from birth until early childhood determines their future development. Among other relationships, the importance of the brain development that takes place during early life may determine the school performance, considered to set the parameters of the outcomes as an adult.

Other determinants of health described in the literature are culture, education, the level of health literacy or access to health care (Canon, 2008). Nevertheless, the report from the Commission on Social Determinants of Health shows that social determinants of health are shaped by the distribution of power, money and resources (CSDH, 2008). That means that

the key factor regarding social determinants of health is social justice at all levels. This highlights the need for social justice to be valued in parallel throughout the society to be integrated into policies and practices.

The identification of social determinants of health has been one of the pillars of the development of public health (Krieger, 2001), but the new global visibility on these determinants does resurface the issue of inequity in health and social justice, because many of the inequalities that decrease health are in fact avoidable (Whitehead & Dahlgren, 2007). However, a greater relevance of these concepts in research and the existence of an international committee for its study may not necessarily mean changing strategies in health policy. The level of evidence that we have today about the impact of social determinants in health is very important, but the outcomes for the people will depend on how this evidence is taken into account by politicians, managers, stakeholders and communities (Exworthy, 2008; Bambra et al., 2010).

## 2.2 Equity in health

Equity in health is multifaceted and represents the fair arrangements that allow equal geographic, economic and cultural access to available services for all in equal need of care (Whitehead, 1990). It is of utmost importance to describe the concept of equity to incorporate the differences in need for health services across different socioeconomic groups. This is because, given the social gradient in health status, the need for care tends to be greater among lower socioeconomic groups. Therefore, it is expected that this group makes greater use of public health services in comparison to more advantaged groups. When the reason for not using the services is poor geographic access or social or economic barriers, this would be considered unacceptable and unfair. This judgement regarding unfairness is based on universal human rights principles.

The inadequate access to essential health services is one of several determinants of social inequities in health (Whitehead & Dahlgren, 2007). The level of access to health services is related to the location and therefore physical availability of such service, but also to the economic and cultural access. The burden of payment for essential health services and drugs might reduce the possibility of access to the health system, in some cases exacerbated by other barriers such as language or cultural practices.

The level of health equity depends on the empowerment of individuals to change the unfair and steeply graded distribution of social resources to which everyone has equal claims and rights. Health inequities are avoidable inequalities in health between groups of people (Whitehead, 1988). These inequities arise from socially produced, modifiable, and unfair inequalities within and between societies (Whitehead, 1990; Marmot, 2004). Social and economic conditions and their effects on people's lives determine their risk of illness and the actions taken to prevent them becoming ill or treat illness when it occurs. The objective of equity in health is the elimination of systemic differences in health status between socioeconomic groups.

The end goal of equity in health care is to match services to the level of need, which may vary among the different groups (Whitehead & Dahlgren, 2007). In practice, the need to take action to reduce inequities and their root causes is becoming ever more present as a major public health issue. The equity in health systems should therefore be built upon equity principles:



- Public health services should not be driven by profit, and patients should never be exploited for profit.
- Services should be provided according to need, not ability to pay.
- The same high standard of care should be offered to everyone, without discrimination with respect to social, ethnic, gender or age profile.
- The values and equity objectives of a health system should be explicitly described, as well as the monitoring carried out to ensure these objectives are approached in the most efficient way possible.

Both equity in health and equity in health care are goals that clearly need a cross-sectoral approach. Health equity in all policies means that every aspect of government and the economy has the potential to affect health and health equity: finance, education, housing, employment, transport or health. While health may not be the main aim of policies in these sectors, they have strong bearing on health and health equity. Policy coherence is crucial; different government departments' policies must complement rather than contradict each other in relation to health equity.

### 2.3 Primary Health Care and Home Care

The conceptual model of Primary Health Care was stated in the International Conference of Alma Ata (WHO & Unicef, 1978) and gives great importance to the development of equitable health systems but also to the role of different sectors at national and local levels to tackle the diverse factors that contribute to illness and poverty. As stated at Alma Ata Conference (1978):

"Primary health care is essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost that the community and country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination."

The strategy of Primary Health Care highlights the need for a comprehensive health strategy not only providing health services, but addressing the underlying social, economic and political causes in poor health. From then until now, the model of Primary Health Care represents a more equitable system, sensitive to the needs of the population (Vüori, 1984; Starfield et al., 2005; Baum, 2007; De Maeseneer et al., 2005), but for this, its development in practice has to remain faithful to its founding principles. As stated in the Declaration of Alma Ata (1978), some of them are: (a) health inequity within a country is socially, politically and economically unacceptable and is therefore a concern both for government and wider society, (b) governments should adopt cross-sectoral strategies as part of national primary health care plans to address the health of all citizens, and (c) governments have a responsibility for the health of its citizens and this can only be achieved by the provision of adequate health and social measures.

Home care aims at satisfying people's health and social needs while in their home. Sociodemographic change and mobility trends affect home care needs. Life expectancy has risen sharply in the WHO European Region in the last few decades (WHO, 2008). The percentage of population over 65 years in Spain has increased from 10.58% in 1975 to 17.36% in 2010. Considering the data from the Organisation for Economic Cooperation and

Development (OECD), it is expected that by 2050 the percentage will be 35.7%, the highest in Europe. This means that one in three people in Spain will be over 65 years old. Though aging cannot be identified with illness, it is true that in a high percentage of the elderly the incidence and prevalence of diseases and their progressive functional limitation is directly affecting their life and relationships, increasing the demand of health services in their homes (Van Haastregt et al., 2000, WHO, 2008).

If empirical evidence shows a close relationship between age and disability, there is also a relationship to the level of dependency. This causes a reduction in participation as embodied in the dependence on help from others. Among the determinants of dependence are demographic factors such as aging, but also social factors such as the modification of the traditional family structure because of changes in the family dynamics such as more women working or increasing geographical distance between members of the same family. There are an increasing number of people living alone in their homes which also highlights the changing attitudes towards older members of society (Oliver, 1999; Sundström & Tortosa, 1999, WHO, 2008)

The recipients of home care are usually people who are not independently able to go to the health centre, so the intervention in homes may represent a good response to the challenge of aging and dependency of the population, although not all those that need home care receive it (Branick, et al., 2002; Kupper-Nybelen et al., 2006). Therefore, people treated at home are usually elderly and dependent, particularly vulnerable and sometimes invisible to the health care system. This may end in less priority on the provision of adequate services in level of health care, putting in risk the equity in health access.

People who stay at home may have different support systems. The closest is made of the family caregivers and informal support networks. Social services develop other activities, including the provision of home services or accommodation in nursing homes when required. The provision of formal care to people with similar dependency varies widely among countries, highlighting the difficulties to compare home care services internationally (Carpenter et al., 2004; Sørbye et al., 2009; Genet et al., 2011). Other public, private and non-profit agencies such as charities or associations very often serve the needs of patients at home by offering home services (Adelvert & Svetling, 1993; Hutten & Kerstra, 1996, WHO, 2008). Home physiotherapy can also be developed from different public and private agencies, but in the countries where a Primary Health Care system exists, it is usually considered part of the community approach in this primary level. Although specific interventions can be developed from specialist care, including hospitalisation in homes, continuity of care at home is one of the characteristics of Primary Health Care in Spain (Contel, 2000).

## 2.4 Home physiotherapy

Home physiotherapy in Primary Health Care includes a set of community-based activities performed at home, in order to detect, assess, support and give continuity to the health needs of individuals and their families, thus enhancing its autonomy. Therefore, in the home intervention, the physiotherapist's role relates to the the assessment, prevention and intervention, detecting compensatory mechanisms or ergonomic aspects to the patient, family and carers in their context (Von Koch et al., 1998). The goals of physiotherapy at home can focus on three areas: ensuring access to appropriate physiotherapy services,

promoting the participation of the family and advising other professionals who perform home care.

Regarding users of home physiotherapy the elderly are the main - though not the only - beneficiaries, although changes in epidemiological patterns and the possibilities of technology transfer widen the availability of home physiotherapy (Elkan et al., 2001; Eriksson et al., 2010). Literature refers research studies and experiences in home physiotherapy involving patients with diverse diagnosis. For some authors, people who have suffered a stroke or cerebral vascular accident (CVA) and have been discharged from hospital, should have access to patient or community services appropriate to their needs and may include home rehabilitation (Torsén et al., 2005; Turner-Stokes et al., 2005). The authors acknowledged that during home physiotherapy other factors may influence the health outcomes, such as the physical and psycho-emotional aspects of the home (Hale et al., 2003). These elements have also been targeted in other studies, because home care also facilitates the development of greater involvement and control capability of the person (Von Koch et al., 1998; Widén et al., 2000). Due to that, the intervention of physiotherapy in the home is a valuable alternative in providing access to health care services (Torsén et al., 2005).

Home physiotherapy has been also studied from the scope of rehabilitation of people with cardiovascular and respiratory problems, where physiotherapy visits may decline the hospital admissions and reduce the length of hospital stay for these patients. But for some authors, the basic objectives to be achieved by a program of this kind go beyond the mere fact of reducing hospital admissions, focusing on quality of life, facilitating compliance and promoting a positive attitude towards independent life (Kirilloff et al., 1986; Bingöl et al., 2000; Jolly et al., 2003; Taylor et al., Smith, 2011).

For patients with osteoarticular pathology, given the rapidity which patients undergoing orthopaedic surgery return home, the intervention of physiotherapy at home after discharge from the hospital can determine the functional outcome for these patients (Deyle et al., 2005; Mangione et al., 2005). Discharging patients who have undergone recent hip or knee replacement from hospital without supervision may jeopardise the outcome of the prosthesis and thus their quality of life (Kuisma, 2002).

Most of the studies related to home physiotherapy focus on the effects of particular physiotherapy techniques to be applied to specific pathologies at the patient's home (Roddy et al., 2005; Nilsson et al., 2007). This kind of research has a great value to deliver evidence-based services of physiotherapy, although does not always consider how the social factors and the home environment intervene in the process (Paz-Lourido, 2008).

Another area of interest for research regarding home physiotherapy is the financial cost of this intervention in relation to a given profile of patient (Lloyd et al., 2010). However, the focus on the illness does not always show the real needs of people at home, which should be the starting point to describe the characteristics of the practices to be developed, the type of professionals required and therefore, the need for home physiotherapy.

### 3. The research study

Qualitative research is commonly used to gain insight into people's attitudes, behaviours, value systems, concerns, motivations, culture or lifestyles. This kind of research is widely



employed in health research with the purpose of highlighting in –depth and contextualised data which can be used for policy formation.

The publication of qualitative research requires a description of the context in which research occurs in order to determine whether it can be transferable to other similar contexts. For this reason, this third part of the chapter will begin with this description and then details the research process and its results.

### 3.1 Context

This study was conducted in Majorca, the largest island in the Spanish archipelago known as the Balearic Islands, located in the western part of the Mediterranean Sea. The current structure of the Spanish health system was established during the transition to democracy during the 1970s and 1980s. The national health system is a decentralised organisation divided into 17 regions or autonomous communities, it is financed by taxes and with universal coverage. Health policy-making also lies at the regional level. The central government has the responsibility to promote coordination and cooperation in the health sector, as well as to ensure that the quality of all services is guaranteed. All autonomous communities have stipulated territorial subdivisions such as health areas and zones. Primary Health Care and specialised care services are organised in order to address the population's health needs (Durán et al., 2006)

The health care system is organised on primary and secondary levels, with an extensive network of Primary Health Care centres and hospitals throughout the region. The regulation for the transformation into the Primary Health Care system was developed in 1984, inspired by the Declaration of Alma Ata (1978). Nowadays, the Primary Health Care in Majorca is an integrated system composed by multidisciplinary teams, where general practitioners (GPs) have a gatekeeper role.

Primary Health Care includes care of individuals, families and the community at large through health promotion programmes, prevention, curative care and rehabilitation. The Primary Health Care reform in Spain was implemented in the country slower than expected, delayed by problems such as lack of resources and political priority, compared to other areas such as specialised care (Martín, 2003). Physiotherapists were integrated in Primary Health Care organisation in Spain in 1989, although the regulation of their role and functions in PHC was not clearly stated until 1991. Act 4/91, which regulates physiotherapy in Primary Health Care at the national level in Spain, considers the physiotherapist as a health professional with functions including direct intervention, prevention and education, research and management. The referral can come directly from GPs (and sometimes from specialists from hospitals). Attending to the Act 4/91, the physiotherapeutic interventions in Primary Health Care can be made in the health centre, in homes or in other contexts in the community. Nevertheless, GPs, nurses and social workers are considered to be the key professionals for home care and these services are provided all over the country (Martín, 2003).

Physiotherapy is considered to be an essential service to be provided in Primary Health Care and in specialised care in Spain. Nevertheless, the delivery of home physiotherapy as part of the PHC services differs among the regional communities. As a result, in some areas of the country home physiotherapy is not offered as a health service at the primary level of

the health system. Despite laws regarding quality and cohesion of the Spanish Health System, the differences for Spaniards in access to health services depends on the autonomous community where they live, illustrating some of the negative effects of decentralisation and highlighting the need for coordination and cohesion among regions (Act 16/2003).

A total number of 22 physiotherapists work nowadays in Primary Health Care in Majorca<sup>1</sup>. They are located at physiotherapy units in some health centres to cover a population over 600.000 at this level of care. Since home physiotherapy service is not offered at this level of care, the health system provides free transportation of dependant people from their homes to the units located in any of the four public hospitals, which is specialised care and not Primary Health Care.

### **3.2 Study design**

Qualitative studies include a range of research designs, attending to the theoretical perspectives, data collection instruments and methods of analysis. In the next paragraphs, the design of this study will be described.

#### **3.2.1 Aim**

Taking into consideration a future implementation of home physiotherapy in the Balearic Islands, this study attempts to reflect how physiotherapists consider their role in this particular context, researching contextualised aspects that could inform policies for the provision of adequate home physiotherapy.

#### **3.2.2 Theoretical perspective**

The theoretical perspective in this research is the social-critical paradigm. This paradigm has evolved since its inception in the Frankfurt School in the 1920s. The socio-critical paradigm was developed based on critical theory, which aims to transform the social structure and empower the disadvantaged.

The aim of qualitative research, under the influence of this paradigm, is to uncover the elements underlying social injustices in order to contribute in their transformation (Lincoln & Guba, 2000; Kincheloe & McLaren, 2005). Therefore, the researcher has to get involved in the processes of self-reflection and decision-making to inform policies, which are assumed in a responsible manner (Popkewitz, 1984). Critical consciousness is brought about not through intellectual effort alone, but through praxis, through the union of action and reflection (Freire, 1979).

This theoretical perspective has been selected for this research because it allows the understanding of the reality of physiotherapy in Primary Health Care as the praxis developed in this particular context, joining theory and practice. It is needed for the integration of knowledge, action and values to orientate the development of this public service.

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<sup>1</sup> This number refers only to physiotherapists working in Primary Health Care. It doesn't include those working in specialised care and other private/public institutions.

### 3.2.3 Purposive sample

Participants in this study were 8 physiotherapists working in the Primary Health Care in Majorca. The purposive sample was selected taking into account the health centre where they worked and the personal and professional profile of the physiotherapists. A socio-demographic questionnaire was administered to the suggested participants, in order to select physiotherapists with different profiles regarding professional experience, level of expertise, age and location of the health centre (urban/rural).

Since home physiotherapy is not yet developed from Primary Health Care system in Majorca, the purposive sample included physiotherapists with previous experience in home care in the private sector.

### 3.2.4 Data collection

The main data collection tool was the semi-structured interview. The use of in-depth interviews was selected because they allow the participants' perspectives to be obtained and deepen the conceptualisations from which they are derived (Fontana & Frey, 2005).

The interviews were conducted until data saturation was achieved. This was the moment in the investigation in which participants' views are repeated, are redundant and no new information was provided. The interviews were recorded, transcribed and analysed. A research diary and a socio-demographic questionnaire were also used for data collection. These provided non verbal information and extra data regarding the participants profile, which was useful during the process of analysis.

### 3.2.5 Analysis

The data in qualitative research refers essentially to people, objects and situations. In this sense, the experiences are converted into words, typically compiled in texts (Huberman & Miles, 1994), whose transcription process also involves an analysis phase (Silverman, 2003). The first part of the analysis and interpretation of the information was produced in parallel with the collection of information during interviews, and later with a careful analysis of the registered data using discourse analysis. This kind of analysis highlights the social constructions that underlie what the interviewees say, taking into consideration that the speech is made up not only by ideas, ways of thinking and ways of speaking, but also practical, social and institutional relationships. The use of language is a specific method of social interaction and it is also analysed from multiple perspectives and schools of thought, both from the social sciences or the humanities and from psychology.

The discourse represents a set of linguistic practices that maintain and promote certain social relations. Some authors (McLure, 2003; Renkema, 2004) define it as critical discourse analysis, as this more clearly specifies that the analysis is not neutral or value-free. This may allow a critical analysis of the ideology that underlies it and its consequences in the context.

### 3.2.6 Triangulation

Qualitative research, like all research, has to be done with a precise methodological rigour. For Morse (1994) rigor in this type of research is given by various processes among which the adequacy of the selection of data to the theoretical framework of the study, obtaining data from multiple sources and methods, the addition of documentation to reconstruct the

process by which the research team arrives at conclusions or the participation of other experts. This rigor has to be accompanied by an explanation of the reflective process to identify the strategies followed in the process and the motivations that lead to these (Janesick, 2000; Chesney, 2001; Malterud, 2001).

In this study, the triangulation of sources and methods was used. As to sources, a literature search was conducted using national and international literature. On the other hand, different data collection methods have been used ranging from the demographic questionnaire, individual interviews and research diary.

Another point of information for the triangulation has been the opinion of experts on both the geographical area studied, as well as other communities in the country and abroad. From the research process emerged discussion items that were presented at national and international forums incorporating elements thereby allowing for triangulation.

### **3.2.7 Ethical issues**

This research has attempted to adjust the process to the ethical principles that avoid the risk that research can entail. In this sense, the participation of the group interviewed in the study was conducted after prior information of the objectives of the project, the institution that employs the researcher and the research process and expected benefits was given (Christians, 2005). Anonymity and confidentiality were assured at all stages in the process. Informed consent was obtained and other aspects regarding ethical issues in qualitative research were considered (Richards & Schwartz, 2002).

Therefore, although the knowledge gained from the study was expected to be used in the transformation of health services, the researcher explained that may not be a direct effect in terms of professional status or the organisation/implementation of any service. In this sense, the literature shows the existence of fragmentation between policy making bodies and research could potentially advice those who make decisions that affect the community (Rist, 2003).

Ethical issues have also been taken into account when presenting the results of the study, taking into consideration the confidentiality and anonymity of the interviewees. Ethical approval was received from the Committee on Bioethics of the University of the Balearic Islands.

### **3.2.8 Limitations of the study**

This study refers to some health, social and educational aspects in reference to home physiotherapy, but many other issues may be considered in further research. The structure of health community services may be different in several countries, illustrating the different ways of developing the national health systems and therefore the professional practices developed. The structure of the care-giving system or the cultural concept of family among different areas should be also considered regarding the transferability of elements of this study to other contexts.

### **3.2.9 Results**

Home physiotherapy was described in various ways by physiotherapists, since many factors from the home environment influence their perceptions. Some of those factors are the

conditions in which families live, the availability of resources of formal or informal care, or coordination with other professionals that are also involved in home care.

“Home physiotherapy is somewhat different. You never know what you'll find in a home. Here, in the health centre, you have everything organised in your way and you have somehow...control over everything. Here you have the equipment, other colleagues...you decide. But there, it is different. You arrive there and you have to adapt yourself to what you have there”(PT, 6)

The current crisis in informal care in many countries has major implications for the organisation of home physiotherapy. For many decades, it was traditionally accepted that the families had most of the responsibility in caring tasks, but this is not possible for many families any more. This was stated during the interviews with the physiotherapists.

“If the family or a caregiver is there with the patient everything is much better. We could train the caregiver to keep what we have obtained during the session. But sometimes that is not possible. Sometimes the caregiver is more fragile than the patient, and sometimes there is nobody to help.” (PT, 4)

Other issues related to physiotherapy were the perception that it is an intervention that requires a high level of physical exertion and the development of some techniques is more difficult in homes than in a clinical setting.

“Yes it is true that in the field of physiotherapy, home work is hard, because you have to keep harmful positions in homes, which are often poorly adapted, but it is also true that a person who is dependent and it is not able to come independently to a primary care service ... or go to a hospital service, needs care at home”.(PT, 3)

In general, the group interviewed mentioned specific aspects of home physiotherapy such as prevention of falls and prevention in people with chronic respiratory conditions, to prevent crises and relapse. The development of activities for assessing the actual and potential physical function to infer the level of autonomy and dependence were particularly noted, although remained focused on the disease and disability.

“I believe that every dependant patient in home needs and an initial assessment, and ... well ... then it should be decided what treatment may continue...and regarding physiotherapy, it should be analysed if it is necessary or whether the patient can benefit from that activity. But I consider home physiotherapy to be something more...educational.” (PT, 7)

In this sense, the interviews with the various physiotherapists hint at two types of objectives for the intervention of physiotherapy. Some reflect the consideration that objectives are aimed at the recovery of the pathological processes that affect a person, and the other objectives are intended to prevent further complications from their dependency. In this sense, a distinction was verbalised between those in which interventions are expected to achieve observable results in the short term or those in which the focus is managing the conditions with the person is living with. With respect to the latter, their work was described as health education and advise.

There was a general perception that physiotherapy in Primary Health Care should cover those dependant people located in homes, but this kind of intervention seemed to have less



prestige than the one developed in the health centre. The lack of human resources for developing home physiotherapy was the main reason explained, although some clearly expressed their dislike of home intervention. Their discourses on this topic gave visibility to the socio-economic determinants of health and the impact of inappropriate resources in public health services.

"I am not sure if physiotherapy in Primary Health Care includes home visits. But nowadays, for us, is completely impossible to provide this service. We have a long waiting list and if I go to visit a home I am not treating six or seven people here. This is the situation." (PT, 8)

"In my view home physiotherapy is a necessary service. We should offer it because it is part of Primary Care, and if we don't offer it, nobody does it. Of course if you have money, you can pay a private service of physiotherapy in your home, but many people cannot afford it. If one day this service is established, I would have to go, I know, and I will go, but the truth is that I don't like it very much." (PT, 4)

The question of cost and inconvenience of transporting the dependents to physiotherapy services also appeared during the interviews. The costs of transportation of patients to the ambulatory services in hospitals were considered higher than the displacement of the physiotherapists to the homes. Transportation of patients for ambulatory physiotherapy was considered to have more disadvantages than advantages, which may eventually lead to patients giving up their treatment. Specific issues were highlighted such as the difficulty of overcoming architectural barriers to access to transport, the time constraints, delays, stress during transfer and the conditions of waiting in health care, especially for people with a delicate state of health.

"Perhaps there are particular situations where being attended in the physiotherapy services in hospitals could benefit the patients, because maybe they are too lonely at home and it is good for them communicate with others. But often, it would be better for the patient and the physiotherapist to organise a home visit. We could also give advice to the patient, make recommendations to the family, care for the caregiver, and all these kind of things...But by now the system is like that. If patients are not independent enough, they are transported to get the physiotherapy" (PT, 1)

Communication with other professionals was seen as particularly relevant for working at home, but they noted that this collaboration is already poor in the health centre. They highlighted in particular that the communication between the physiotherapists, GPs and nurses is essential not only to provide the best care to the person and establish a continuity, but also to avoid conflicts. The role of physiotherapists in evaluating the patient's physical performance was seen as helpful for social workers when making decisions about the most appropriate social resources for individuals and their families. Nevertheless, most of the physiotherapists interviewed stated that other health care professionals had a fundamental lack of knowledge about the professional practice of physiotherapy, what was described as influencing to the lack of cooperation between different professional groups.

"It seems that everybody knows what we do, but then you realise that nobody knows what physiotherapy is." (PT, 2)

Finally, other aspects such as research and teaching emerged in the interviews. Particularly some interviewees note that home care is a field that is provided in Primary Health Care

and that it represents a scientific and professional development for the group of physiotherapists working in this level of care.

“It is another area that can be developed, like any other area. If it is not developed, this professional field is lost” (PT,4)

The quotes reveal the perception that a professional area that is not exercised, missing or being taken over by other groups or health systems, compromises the future of the discipline and the professionals responsible for their development.

### 3.2.10 Discussion

One of the most important characteristics of home physiotherapy is that it is carried out in a different environment to clinical consultancy, as was highlighted in the results of this study. The home is considered in the Sundvall Declaration (1991) as a supportive environment for health, a community environment that gives people protection from threats to health, while allowing them to expand their skills and develop the autonomy to health (WHO, 1991). The home therefore represents the normal environment in which life has developed, and living in it, under appropriate conditions, is conceptually linked to the possibility of obtaining a better quality of life. Therefore, it must be understood not just as a physical space but also as a psychological and social concept, often linked with the warmth, security and protection from the pressures of work and public life (Bowlby et al., 1997). But on the other hand, when various health care professionals intervene in the home for a long period of time, changes occur in the meaning and habits that transcend the limitations of the home and which also involve the families (Angus et al., 2005; McGarry, 2010). A person with chronic illness in the family may affect the whole family functioning and at the same time, the relationship with the family may have an impact on the person with disability (Greenwood et al., 2009)

Not taking into account the characteristics inherent in the home in a broad sense are thus dismissing the meanings that the home has for the person living there, and for the professional who has to intervene. In this study, the results highlight the perception of the home environment as an uncertain setting, where physiotherapists can have less control over the situation, pointing out changes in the power relations that may influence the therapy. Home physiotherapy requires them to be more creative when developing the appropriate physiotherapy treatments, but also to put in practice social skills to have an effective communication with the patients, families and other professionals.

Although the quality of life of those in the home can be influenced by factors such as loss of mobility, other aspects may be involved in the perception of quality of life. For example, the absence of family relationships, inability to perform activities of daily living and reduced social contacts and communication may also be associated with insufficient financial resources. For this reason, home physiotherapy intervention should not ignore these social determinants of health. The concept of home is not only steeped in the relations between its inhabitants, but is expanded to include the surrounding neighborhood with its network of social relations and services. In this way, family, neighbours, friends, associations or community groups, social and health services and schools can participate and influence in some way in the informal care that is performed in the home (Hanson & Pratt, 1988; Linström et al., 2002; Ollonqvist et al., 2007). This demonstrates how relevant social networks are for the development of home care in general and home physiotherapy in particular.

It was a feeling among the interviewees in this research that it is very difficult to implement the service at people's homes mainly due to the lack of human resources and political priority. But they could see the benefits of home physiotherapy for those who could afford a private physiotherapy. This highlights the impact of social gradient in the access to health care and thus the issue of equity in health.

It is recognised that current demographic changes are already leading to greater pressure on health systems, since the rate of disability increases with age and has caused an increase in the number of dependents who need care at home (WHO, 2008). In this situation, it seems that many countries are committed to home care as a useful mechanism to address the health needs of users. However, at the same time, the number of studies on this topic have increased considerably in recent years, driven by improving the cost efficiency of specialised care developed in homes. This occurs at the expense of taking in consideration the larger systemic factors around the social determinants of health and equity in Primary Health Care (Paz-Lourido, 2008).

Although several studies focus on assessing its benefits in comparison with other environments of intervention, one of the greatest difficulties in analysing the results of physiotherapy intervention in the home is in the low specificity of the studies about physiotherapy intervention (Ward et al., 2005). Without doubt, it must be recognised that health care in homes involves the interaction of multiple factors which are difficult to assess. It is challenging to depict such a multifaceted intervention, which influences many dimensions, not only physically but also psychologically and socially. As an example of this complexity, caregivers may be regarded as a resource for continuity of physiotherapeutic intervention, but on the other hand, they may be a group susceptible to a specific intervention due to the emotional and physical demands of the process of caring (Widén et al., 2000). Despite the complexities providing physiotherapy in the home it is deemed less prestigious than offering the same level of care within health care settings.

Several studies are making headway on the conceptual framework for physiotherapy practice at home, especially in terms of relational aspects between professionals and patients treated in the home environment (Von Koch et al., 1998; Wottrich et al., 2007). Other authors call attention to the value of structuring the intervention of physiotherapy on the needs and expectations of the person at home (Hale et al., 2003, Hale & Piggot, 2005). This suggests that the objectives of the intervention of physiotherapy at home should focus on the needs of the person therein situated, not only in observable physical findings or standardised protocol for intervention. This points to a future where research on physiotherapy intervention takes into consideration the cultural, emotional and social issues of home, beyond the focus on pathology and its costs.

### 3.2.11 Implications

Both the interdisciplinary and inter-sector approach have significant importance for professionals when working in the home environment, which means that the implementation or development of the service of home physiotherapy has political, organisational and educational implications. The general perspective of home intervention seems to be of high importance for working at patient's homes. This leads to the importance of inter-professional education, with influence in avoiding the stereotyped vision of physiotherapy that many social

and health professionals still have, but also in a better integration of physiotherapy in Primary Health Care in the geographical context of this study.

The development of home physiotherapy requires not also technical expertise but also social skills in particular, to facilitate the communication and coordination between professionals of different health and social services. Taking into consideration the difficulties for the development of the needed inter-professional coordination, more focused efforts should be made to avoid the independent practices among Primary Health Care teams.

Creativity and social skills are also necessary to take advantage of this particular environment for the treatment and establish good communication with family, informal and formal caregivers. The home has emotional implications for patients and families that transcends the physical structure. That should be taken into consideration when deciding the need for health care.

Informal care has often shifted to formal care, and therefore it is possible to find new figures in the home arena, such as privately contracted caregivers or professionals from social services with different levels of responsibility in the continuity of care. This requires that the physiotherapist should understand the organisation of social services and the different professionals that intervene. Physiotherapists have an important role not only in direct intervention in the home, but also in the development of health programs for caregivers and other support networks. Nevertheless, the effects of home physiotherapy for patients may be influenced not just by the techniques developed by the physiotherapists, but also by the intervention of other health or social teams and the caring system as a whole.

The social factors of health such as living conditions, social gradient of social exclusion are related to issues such as health needs, equity in the access to health care or the role of the health system to satisfy health rights within society. The social conditions for the development of home physiotherapy and the professional role of the physiotherapists should be consciously integrated to develop the adequate services in the context.

#### 4. Conclusion

In light of this chapter, the engagement in the home requires an understanding of the home as a particular environment, where the social determinants of health are more visible. Therefore, these aspects should be considered in reorienting a physiotherapy practice based on a more holistic approach to health as well as in the educational curriculum in physiotherapy. This new praxis can emerge from a more comprehensive theoretical perspective combined with supervised clinical practice in the home setting. Taking into consideration that many other health and social professionals may be required in home care and rehabilitation, well designed interprofessional education is of critical importance for professionals and families. Finally, all these efforts should be designed in parallel to policies and strategies aimed to adapt the delivery of quality home physiotherapy balanced with the real needs of people, but also with cross sectoral strategies towards achieving equity in health.

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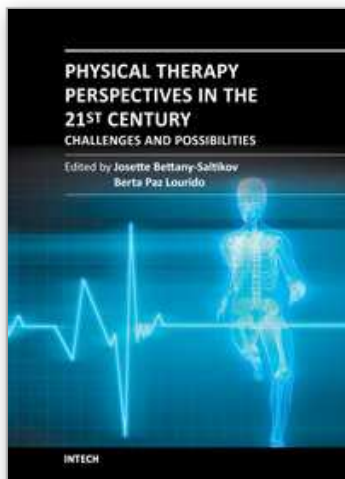
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## **Physical Therapy Perspectives in the 21st Century - Challenges and Possibilities**

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This book contains new information on physical therapy research and clinical approaches that are being undertaken into numerous medical conditions; biomechanical and musculoskeletal conditions as well as the effects of psychological factors, body awareness and relaxation techniques; specific and specialist exercises for the treatment of scoliosis and spinal deformities in infants and adolescents; new thermal agents are being introduced and different types of physical therapy interventions are being introduced for the elderly both in the home and clinical setting. Additionally research into physical therapy interventions for patients with respiratory, cardiovascular disorders and stroke is being undertaken and new concepts of wheelchair design are being implemented.

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