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THE CHANGING FACE OF HOLISM IN HEALTHCARE: CONSEQUENCES FOR PRACTICE, EDUCATION, AND RESEARCH

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Abstract

The concept of holism in healthcare is subject to dynamic evolution driven by multifaceted factors such as medical advancements, technological innovations, socio-economic shifts, and political dynamics, all interwoven with the progress of global society. This evolution reflects an ongoing process of conceptual refinement, influenced by practical applications within clinical settings, the continuous development of empirical and conceptual theories through scientific research, and the collective learning experiences of healthcare professionals in educational institutions, as well as socio-informative gatherings like seminars and conferences.

In contemporary healthcare, holism extends beyond individual medical practices and now encompasses an entire universe of healthcare professions, each characterized by distinct functions, roles, and responsibilities. Communication within and across these diverse units and organizational levels is essential for fostering interdependency, and achieving unity, consistency, and harmony in the pursuit of healthcare objectives, delivery, and evaluation. Notably, each healthcare discipline possesses its own distinctive vocabulary, embodied in a set of concepts, which are shaped by disciplinary interests, areas of focus, and the surrounding contextual or circumstantial realities.

This paper explores the evolving nature of holism within the healthcare domain, examining the forces that drive its transformation and the implications of this transformation for healthcare professionals, institutions, and systems. By dissecting the conceptual and practical dimensions of holism, we shed light on the intricate interplay between medical progress, technological innovations, societal shifts, and the dynamics of global healthcare. Through a comprehensive analysis of how diverse healthcare disciplines employ unique terminologies and concepts, we aim to

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unravel the complex fabric of holism as it manifests in various professional domains and across different levels of healthcare organizations.
Our investigation unveils the challenges and opportunities presented by this evolving concept of holism, emphasizing the need for shared underpinnings in conceptual communication to foster the unity, consistency, and harmony of care objectives, delivery, and evaluation. By identifying the diverse vocabularies and perspectives within healthcare disciplines, we aim to facilitate a more integrated and collaborative approach to holistic healthcare that transcends disciplinary boundaries.

Introduction

The interpretations and meanings of significant concepts such as **holism** used in healthcare sciences change with medical, technological, socio-economic and political changes and with the development of world society. These changes can be seen to bean evolutionary process of conceptualization, brought about by the concept's practical utility in clinical settings, by scientific research that refines and modifies related empirical and conceptual theories, and by professionals' collective learning at educational institutions and socio-informative gatherings such as seminars or conferences.

The concept of holism is evolving in today's healthcare. The whole universe of healthcare involving professionals whose functions, roles and responsibilities are communicated interdependently across different units and levels of organizational systems. This interdependency requires a shared underpinning of conceptual communication if unity, consistency and harmony of care objectives, delivery and appraisal are to be created. Each discipline has its own inherent vocabulary as expressed in concepts (Repko, 2008 pp 284), differences being due to disciplinary interests, focus and contextual or circumstantial realities.

Professionals involved in healthcare come from different disciplinary traditions. These traditions form the conceptual knowledge and understanding of every professional through practice, and so influences professionals' beliefs, attitudes and behaviors and their insight into their roles, functions and sense of responsibilities. Specific concepts may therefore need to be redefined (Wolfe & Haynes 2003 in Repko 2008), to *create a common ground on which to construct for coherent understanding* (Newell 2001 in Repko, 2008) within the complex processes of healthcare.

The aims of this study are:

1. To illuminate the evolutionary transformation of the concept of holism in healthcare
2. To form a summative, analytic and coherent knowledge foundation for the term holism in healthcare
3. To objectify and/or expand the theory of the subjective understanding of the concept of holism, and its meanings or connotations in different contexts, perspectives and levels across disciplinary traditions within the system of healthcare
4. To identify implications of the conceptual evolution of *Holism* in healthcare professional practice, education and research.

Theoretical and Contextual framework Holism in healthcare

Holism originates from the Greek word *holos* meaning whole (Griffen 1993 in McEvoy, Duffy, 2008) and is sometimes spelled wholism (Shroff, 2011). The discussion on the semantic meaning of holism in health can be traced to 5th century BC Ancient Greece, *monism* being emphasized as an ideal way of viewing human health

(Bergdolt, 2005). A monistic view combines physical and mental aspects of health (ibid), Aristotle (384-322 BC) later introducing the idea of *dualism* and the separation of physical from mental well-being (Ackrill, 2006). Descartes asserted in 17th century that the body as a machine functions separately from the soul (Pilgrim, 2016), the development of medical sciences being influenced by this thinking and the idea that human beings can be understood in parts. Biomedical scientists therefore specialized in the study of the human body, which brought about unique in-depth scientific knowledge in natural science. Fascinating knowledge-discoveries have generated new concepts such as symbolizing diagnoses, treatments and rehabilitations, these being classified into groups to improve and ease the linguistic understanding of human bodily existence in the field of biomedicine. This has ultimately drawn the focus of medical professionals into a narrower view of human beings. Human cognitive limitations mean that the overwhelming knowledge in this disciplinary field must be subdivided if it is to be studied, expanded and deepened. Biomedical specialties therefore evolved and developed individually based on bodily systems, examples including neurology, cardiology, pulmonology, urology, endocrinology, orthopedics, dermatology, obstetrics and gynecology; this later developing into more specific diagnoses, treatments and rehabilitation such as in oncology, pharmacology and alternative medicine. The architectural and geographical locations of units and wards are arranged, in today's healthcare institutions, by these specialized areas of knowledge.

Medical professionals, as a result of focusing on their specialized field, tend to view human beings in parts, sometimes even objectifying them (Keshet et al 2012; Todd, 2016). This contradicts the value-laden principle of holism. Holism as a concept has been reintroduced in healthcare as a humanistic principle,which garners great respect for human value and human lives (Pilgrim, 2016). The medical discipline has therefore been challenged and critiqued through the humanistic conceptualization of holism (ibid). Humanist professionals from medical fields and other healthcare science fields such as nursing and physiotherapy, advocated that holism should be conceptualized through the humanistic perspective, promoting professionals' awareness of their relational approach to patients. In nursing, Dr. Martha E. Rogers as early as 1970 emphasized the significance of viewing the patient as a whole human being of inherent pandimensional parts: mind, body, soul, time, space, energy fields, and as being at one with their environment and the universe (Rogers, 1970; Rogers, 1990; Rogers 1992). Holism in the form of the humanistic perspective advances the belief that a human being as a whole person is more than the sum of their parts (Rogers, 1992; Kim, 2000; Pribram, 2006). The concept is conceptualized and understood beyond the semantic meaning of holism,which here is considered to be a philosophical principle that safeguards human value, and guides human thoughts, actions and interactions.

The semantic definition of holism has been applied in many fields; architecture, engineering, astronomy and other material sciences (Darling, 2005) now being recognized as important contributory sciences within the system of healthcare. Human beings are not separated from the realm of the complex healthcare environment, which furthermore encompass abstract realities such as communication, organizational system and governing politics.

Method

This study is a literature review. It applies the method *concept analysis with an evolutionary view,* Rodgers (2000) suggesting the following steps for this method:

1. *Identify concept of interest*
2. *Identifyand select appropriate realm (setting and sampling) for data collection*
3. *Collect relevant data to identify attributes and contextual basis of the concept*
4. *Analyze data onthe characteristics of the concept*
5. *Identify exemplar of the concept*

6. Identify implications, hypotheses and implications for further development of the concept

Rodgers (2000) asserts that an *evolutionary view* can be used as a philosophical basis for developing new ideas on existing concepts (Rodgers &Knafl, 2000). Concepts are considered to be dynamic, and to develop continuously due to their practical use and purpose in a given social or empirical context (Ryle, 1971; Toulmin, 1972; Wittgenstein 1968 in Rodgers &Knafl, 2000). The emphasis of the evolutionary approach is inductive, discovery focusing on the identification of relevant concept aspects (Rodgers 2000 in Rodgers &Knafl, 2000).

Searches that use the keywords holism, holistic needs, and holistic care yield literature from related healthcare disciplines that use the concept of holism. These keywords were also combined with patient, healthcare, nursing, medicine, psychology, nutrition, pharmacology, physiotherapy interdisciplinary, and/or conceptual analysis. Other keywords emerged while reading the literature such as alternative medicine, interprofessional practice/education/research, and were used as keywords with holism. The collected literature was reviewed to identify relevant attributes of holism, and to identify statements that reveal how holism is defined in the literature by the author, by the researcher or by the researcher's subjects.

The databases searched were CINAHL, PubMed, Cochrane Library, Medline, PsycINFO and Scopus

Inclusion and exclusion criteria

Many papers, books and related texts that expose the conceptual use of the term holism in practice, theory or research were included. The number was, however, limited to avoid repetition. Multiple literature sources that show similar use of the concept of holism were considered to be redundant validation, many relevant documents therefore being excluded. The literature also included editorial papers and non-scientific articles, such as academic papers published by university lecturers in different disciplinary fields. Inclusion of this data can be justified, through other samples of linguistic communication, by these being considered to be evidence from the real world of the application of holism as a dynamic terminology in a healthcare context. The terms *human being* and/or *patient* have in this study therefore been used in the context of empirical evidence.

Limitations and contributions

There is a vast amount of relevant and related literature available, our searches certainly leaving a large proportion of this literature undiscovered. Conducting this form of research with collaborative partners from related disciplinary fields would, however, help ensure that all relevant papers are included and that each disciplinary perspective is equally represented. The study does, however, have enough evidence to construct new hypotheses, and to support the proposals. This study can contribute significantly to an understanding of how the conception of holism of professionals in different disciplinary fields changed over time as healthcare developed, and to understand how such an evolving conceptualization influences them, their practice, education and research, so moving forwards towards *innovation* for the good of the society they serve.

Presentation of Data and Analysis

Holism has been conceptualized and utilized by healthcare professionals from different disciplines in similar and different ways, the concept of holism in healthcare evolving as a strategic idea that focuses on the body, the body and mind and/or the body/mind/soul. The concept is today becoming more influential as a critical *idea of an intervention and of a process***.** Holism as a concept appears to have evolved to challenge and transform healthcare services to become more individualized, appropriate, timely, and complete within a scope of a specific care continuum.

Result and discussion

The literature shows that healthcare professionals today share a common conceptualization of holism as a humanistic principle, a concept that safeguards human value. This is reflected in the professionals' endeavors to

provide the best healthcare possible to the society or individual in their care. Differences in conceptualization lie in the semantic understanding of the term holism, this determining the scope of a given "whole".

The semantic definition has been conceptualized based on differences in the scope of wholeness of human beings as a complex entity. Conceptualization is, in some cases, limited to the wholeness of the biological body (Patterson, 1998; Kim et al, 2016), the scope in other cases reflecting the interconnection between human mind and body (Keshet et al, 2012; Pike, 2008), or interrelated mind, body and soul (Yiu et al, 2010; Bancroft, 2010; Keshet et al, 2012). Scope for others transcends beyond mind, body, soul and encloses interventions (McEvoy & Duffy, 2008; Hoffmann, 2003; Keshet, 2012) and/or even processes (Poulymenopoulou, Malamateniou&Vassilacopoulos, 2013; McGrath et al 2006; Brown et al, 2006; Yiu et al, 2011; Hoffmann, 2003; Keshet, 2012) that relate to environment, time, space and even abstract energy fields that surround a human being within the known universe (Rogers, 1997). The semantic definition has been applied based on the scope of professionals' limited perspectives, this being determined by their knowledge, competencies, functions and roles within a healthcare discipline.

Professionals' conceptualization of holism therefore has been expressed as being either a disciplinary aim, an intervention, and/or a process for *meeting the identified needs of patients.*

Holism as a disciplinary aim, intervention and/or a process

The conceptualization of holism as an aim is understood as being situated in the patient and their cumulative needs, with or without *regard* to the transcending inherent aspects of a human being, aspects such as innate time, space, environment and energy field in an inter-organizational and structural circumstantial existence. The aims are *gratification of needs* distinctively identified through the *deduced* semantic understanding of the word holism within a disciplinary field. Needs were also defined based on Maslow's theory on some aspects of human life: physiological, safety, love and belonging, self-esteem and self-actualization (Kartanovskaia et al 2015). In the narrowest sense, *a physician may believe that a reductionist approach to care focusing on underlying cause and treatment of illness can be considered a holistic approach to care* (Patterson, 1998). Holism in nutritional science was similarly conceptualized as being related to the *prediction of the valuation of food functions ("*what it does as a whole*") and the* de*valuation of food elements* ("*what is in it*") (Kim et al., 2016) for the human body. Professionals in the fields of psychology, pharmacy, nutritional physiology, medicine, nursing and physiotherapy also considered that the combined needs of mind, body and/or soul are *"holistic"* healthcare aims and should be gratified (Keshet et al, 2012; Pike, 2008; Bancroft, 2010; Hoffmann, 2003) through disciplinary and /or interdisciplinary knowledge and competencies (McEvoy et al, 2008).

Conceptualizing holism as an aim shows that professionals recognize the interconnectedness of human needs, whether this conceptualization relates to interrelated body mechanics(Patterson, 1998*) mind-body* (Todd, 1988) or body-mind-soul needs (Yiu et al, 2010; Bancroft, 2010; Keshet et al, 2012). This form of conceptualization prompts professionals to become aware of the limited contribution of their disciplinary functions to meeting the patient's needs, leading to holism being conceptualized as an intervention.

Each and every limited discipline is dependent on other contributing disciplines for complete interconnected healthcare interventions to be formed. *Accepting the interconnectedness of all energies may suggest that all interventions in life are holistic* (Patterson, 1998). Holistic interventions for some professionals include the use of music, guided imagery, therapeutic massage, play therapy and communication skills during surgery (Selimen&Andsoy, 2011), or a complex management of wound care (Hjelm, Rolfe, Bryar, Andersson & Fletcher, 2003). Interdisciplinary teams are formed based on identified patient needs (Willumsen, 2006), these needs determining the professional or disciplinary functions required. Holism has, in this sense, been conceptualized as

a collective (inter)disciplinary intervention to meet holistic needs or aims. It must, however, be noted that the context and/or perspectives of the conceptualization of holism has changed, transferring *from* the holistic reality of the patient as a human being (which may be called human holism) to the accumulation of professionals' contributory competencies to form holistic healthcare (healthcare holism). The location or propriety of holism was conceptualized as shifting from the human being in need of service to the material world of healthcare, this movement substantiating the abstract *rift* or distance between human needs and healthcare intervention. This distance furthermore constitutes the processes involved in any healthcare system. Professionals, in conceptualizing holism as an intervention, are focused on carrying out their disciplinary functions. They comply with organizational schemes, rules and regulations, and rely on given schedules, procedures and routines, these being framed by policy makers. Organizational structures therefore may or may not match the inherent *time and space* need of the human and their individual health situation.

Professionals from similar and/or different disciplines have been compelled to collaborate through acknowledging the limitations of each disciplinary perspective in identifying and in meeting the holistic needs of human beings. Collaboration is a process of sharing, partnerships, interdependency and power that transcends professional boundaries (D'Amour, Videla, Rodriguez & Beaulieu, 2005).

It is a resource consuming process in a space, time, and energy field among and/or in between healthcare professionals, and between professionals and patients. This process proceeds to the conceptualization of holism as a process.

Hoffmann (2003) suggests that holism means the collaboration of a number of disciplines, collaboration being the facilitation of collaborative engagement and the recognition of common goals. Collaborative goals are protection, comfort and care (Boyle in McGrath et al., 2006). Collaboration within and across disciplines is, however, inadequate for achieving holism. Disciplinary background drives professional knowledge and competencies, and regulates professional perspectives in a role or position in an institutional platform and hierarchy. Clinicians, educators and researchers within a given discipline therefore perform their roles with limited overview, interest, motive and responsibility for the achievement of completeness of interconnected healthcare, depending on their *distance* from the individual they serve. The roles of professionals in leadership and human interactions have, in this form of conceptualization, therefore been emphasized. Aspects in organizations such as power relations (Keshet et al, 2012), resource distribution and time management for continuity of care were considered, features in the advocating of holism (as a process) including respect for the family and patient's choice, needs for information, and good communication (McGrath, Holewa, & McGrath, 2006).

Patient participationis, for example in an acute surgical setting, highlighted as being a crucial component of holistic pain management (Brown & McCormack, 2006). Assessment, records and documentation are also attributed to holism as a process for maintaining continuity of care**(Yiu et al., 2011)**. Holistic patient needs such as knowledge of illness, psychological support, culture-specific care and finance are all to be assessed upon discharge (ibid) to facilitate follow up. Documentation is acknowledged as being necessary to *link the knowledge* of involved professionals in an interdisciplinary collaboration. It was recognized in nutritional science that massive computing power is essential to integrate detailed information about the factors that influence the relationship between diet and health (Hoffmann, 2003).

Documentation and collaboration were, in conceptualizing holism as a process, seen to integrate the knowledge and competencies of professionals. The idea of documentation and collaboration does not, however, necessarily involve the element of time and space (including distance),which synchronizes or coordinates healthcare intervention with the interrelated human needs. Coordination of care requires management of the relationship

between the time dimension of the individual patient and the availability of involved professionals, their competencies, and material healthcare resources. Healthcare professionals recognize their individual responsibilities to collaborate. Their understanding of the nature of coordination and their role in this to ensure holism is achieved are, however, elusive (Walsh et al., 2011; Beringer& Fletcher, 2008). There is lack of clarity about who should perform specific tasks, and there are omissions and duplications of care coordination activities (Beringer& Fletcher, 2008). It has been shown that there is no agreement between professionals on a definition of "care coordination" and no consensus on what this entails (Walsh et al., 2011). Nurses have the advantage of being "nearer" patients and performing the role of team coordinator. The role of coordinator in interdisciplinary collaboration remains, however, an illusion or a phantom. This was understood in the conceptualization of holism as a process that involves the use of information technology to act as a *phantom coordinator* or meeting point in the process of *synchronizing* human holism and healthcare holism. A coordinator therefore facilitates the *fusion* of health information and/or multidisciplinary knowledge to promote health and rehabilitation. A coordinator also *constructs* appropriate simple or complex diagnosis and treatment, and *prevents* health threats, risk, complications and contradicting interventions or emerging undesirable incidents in a *timely* manner. The use of information technology therefore allows each professional to be seen as being responsible for taking the initiative to act as a coordinator, and in raising questions or in exploring uncertainties to clarify their duties, functions and roles in the process. Nurses in today's healthcare system, acting as "partial coordinators", are however bearing the majority of the responsibility of the coordinator role not only for their discipline, but also for other disciplines. They also, in some cases, carry out interventions that should be the responsibility or functions of other disciplines.

FIGURE 1:Descriptive mapping of professionals' conceptualization of holism as an aim, an intervention and a process in healthcare

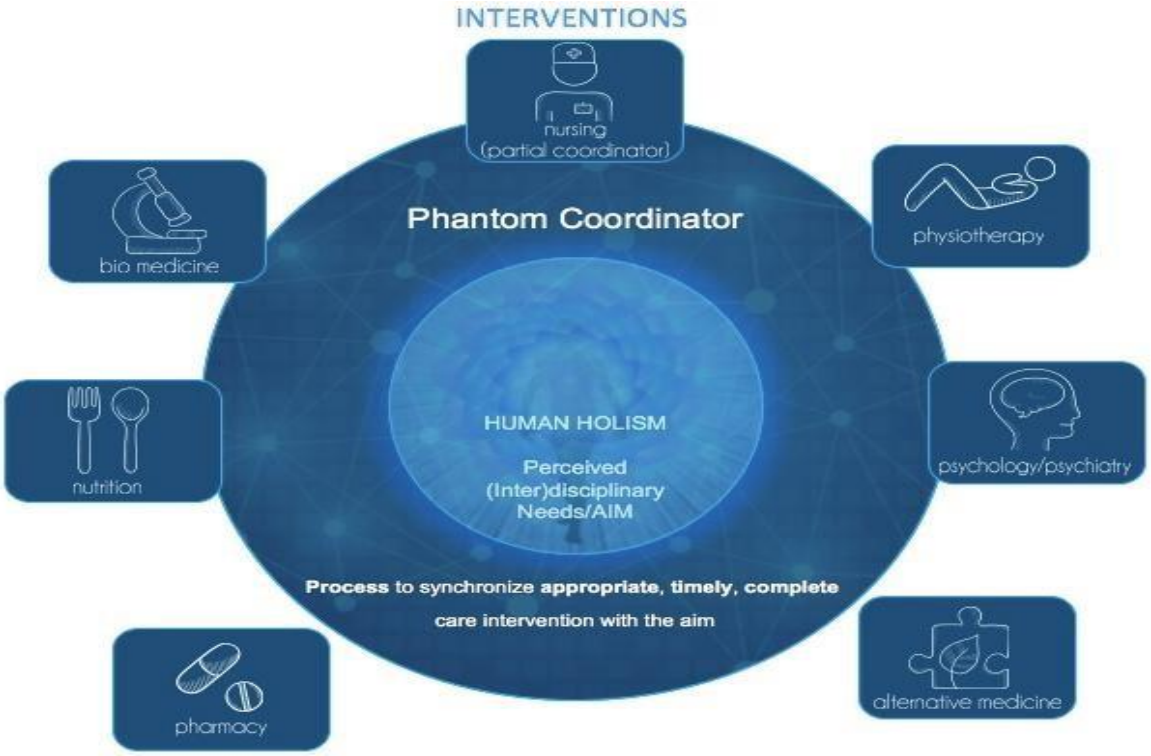

Figure 1 shows that the determining factors in achieving holism lie in the proper identification of needs, in the identification and provision of necessary disciplinary intervention, and in the coordination process within which they should be synchronized.

The fundamental components of holism in an individualized healthcare are:

1. To identify individualized patient needs involving mind, body, soul, and inherent time, space, energy fields and environment
2. To provide needs-based intervention that is appropriate, sufficient (if not complete) and timely within a healthcare continuum
3. To synchronize identified needs and prompted qualified intervention, as influenced by the distance between them, availability and continuity of professional and material resources
4. The *presence* of a coordinator: the(information technology) roles that determine duties and functions; geographical and hierarchical location (rift); qualification as interdisciplinary mediator with broad perspective (nurses)
5. The content and function of information technology in the *absence* of a coordinator, such as collective health information and fusion of disciplinary knowledge for interdependent intervention
6. Continuity and consistency of care

Implications of the conceptual evolution of Holism for professional practice, education and research in the context of healthcare

Healthcare as a system is a socio-political, economic and professional activity that provides services to promote human health, prevent illness and complications, facilitate cure, and restore well-being. Healthcare as a system is therefore a product of governmental strategies, educational and research colleges and universities. Healthcare constitutes knowledge and competencies that determine professionals' roles, functions and responsibilities, the healthcare system furthermore being made up of working spaces that are maybe located in different buildings, units or rooms and that accommodate people who, for example, need the service, equipment, instruments.

The system is structured and organized in a way that provides people who are in need of individualized simple, multiple or complex services with access to them through appropriate and timely facilitation. Holism is based on an individual person made up of an inherent and interconnected mind, body, soul, time, space and energy fields and with unique complex healthcare needs. Holistic healthcare is therefore the provision of an individualized systematized service to the wholeness of each human being. The provision of individualized holistic healthcare is dependent on the availability of the materials and professional resources that are required, at the right time and the right work-space. Holistic healthcare should therefore be carefully planned, organized and coordinated based on the identified complex needs and corresponding complex competencies. Complexities of needs means a combination of two or more needs within the interest of the same or varied disciplines. Holism as a principle guides professionals in their everyday humanistic practice to see their patients as a whole person. The professionals' conceptualization of holism does not *yet*, however, reflect holism in healthcare. There are incidents of fragmented, interrupted, incomplete and untimely healthcare services that cause healthcare risk and complications (White Paper. Nr.47, 2008-2009; Aase, 2010).

The following tables suggest that the impact of holism as a concept on healthcare has, due to its conceptual ambiguity and empirical reality, grown slowly.

Table 1 shows that the discrepancies in a conceptual understanding of holism in the healthcare arena, as examined in this study, are hypothetically brought about by the causes shown in the table.

Table 1 Causes of inconsistent conceptualization of holism

1. Disciplinary distinctions and limitations of perspectives, roles, functions, responsibilities, hierarchical positions and authorities.
2. Obscured logical deductive constructs from a semantic definition that creates limited aims, incomplete interventions and interrupted processes.
3. Alternating perception between *human holism* and disciplinary or *healthcare holism* and/or illogical understanding between ontological and epistemological/empirical/practical understanding of holism.
4. Abstract, unknown and unpredictable nature of patient healthcare needs in terms of complexity, prognosis, time, space and energy fields, which creates uncertainty.
5. Undetermined scope of healthcare at an individual, institutional and/or organizational level, and its advancement determined by continuously developing knowledge, practice and research and/or innovation.
6. Impeding and interrupting structure and policies, routines and scheduling that either delay or acquit specific healthcare aims, interventions or processes.
7. Less clarity and incompatibility between given roles, functions, responsibilities, hierarchical positioning and authorities that deprive professionals of a broader view, of identifying a holistic aim, of rendering timely intervention and a more continuous/uninterrupted healthcare process.
8. *The phantom coordination* and *meeting point* of collaborative disciplines within the abstract field of time, space and energy fields within a given continuum.

Holism does, however, still seem unachievable despite strong evidence that healthcare professionals recognize and advocate the importance of holism as a concept. Table 2 shows identified factors that delay the achievement of holism in healthcare today.

Table 2 Delaying factors or hindrances toachieving holism in healthcare

The healthcare structure does not base the facilitation of care upon human holism, but on healthcare holism and the need of time and space; therefore

The healthcare professionals tend to switch the holistic perspective *from human holism to healthcare holism;* and consequently,

Professionals are forced to adjust to existing healthcare structures, and may tend to disregard the innate time, space, energy and environmental fields of holistic/pandimensional human needs in a health circumstance; and/or

Some healthcare professionals consciously or unconsciously submit themselves to conceptualizing time and space as a part of healthcare holism rather than human holism, so forcing them to disregard the inherent time and space need of patients in a complex healthcare circumstance.

The distance between the identified holistic healthcare needs (human holism) and intervention (healthcare holism) involves processes that create a gap, which hinder professionals' direct influence in care.

Structural or organizational changes or transformation require the significant contributory work of professionals (with different roles, functions and responsibilities) from all relevant disciplines and requires a lengthy or time-consuming process.

This study therefore implies that further changes and development are required in professionals' educational curricula (Ying, 1993), in organizational systems in the clinical setting (Brown &Wimpenny, 2011), and in research methodologies (Repko, 2008).

It was suggested that holism should be communicated and practiced by clinicians and teachers (Hassed, 2004; Hjelm et al, 2003), or be included in the disciplinary curriculum (Love, 2008; Lane, 2005) of professionals who perform clinical, educator or leader roles. The study of holism and the incorporation of holism into relevant organizational theories may also broaden professionals' disciplinary perspectives, to include the inherent time and space needs of individual patients. Professionals' insight may, through this, be influenced to elicit *proper management* of healthcare delivery. Understanding holism evokes leaders from all levels and institutions of the healthcare system, including policy makers, to investigate ongoing transformation and reconsider changes in existing processes and structures. Health care has to be organized in a way that gives access to the *holistic individualized resources* that are most appropriate, and to sufficient resources made available at the right time and space. *Many leaders respond to broadening sets of problems by narrowing their vision and by focusing on smaller aspects of human and organizational potential* (Carlopio, 1994). This study reveals (see Figure 1) that resource allocation takes place in the distance between aim and intervention or between patient and professionals and/or their competencies. Pathways between these may therefore need to be examined; to identify and eliminate time-consuming, unnecessary and non-productive activities, and to enable innovative changes that *shorten the distance* between healthcare needs and the required individualized resources.

Each professional may, with a broader perspective and common understanding of holism, eventually include the patient's need for time, space, energy fields and environment into their disciplinary aim and as an inherent part of it. The remaining mind-body-spiritual needs that require intervention should also adhere in the aim. Professionals may be better acquainted with their role and responsibilities in the coordination of care, and be more aware of the importance in knowledge development of proper assessment and documentation, in timely access/reference to health-related information and in patient safety.

It shows that the different conceptualizations of holism are not reflected in the professionals' awareness of the *real distance* between human needs and disciplinary(competence) resources. The effect of real distance on professional practice and on the process of healthcare delivery has therefore neither been searched for nor investigated. In reality, the geographical solutions, architectural structure and hierarchical organization of healthcare affects and determines the distance between patient needs and resources. The distance between patient and professionals/competencies differs from discipline to discipline; some groups of professionals unconsciously having segregated themselves to become inferential *distant healthcare providers and collaborators*. Pharmacists and nutritionists for example are, in some organizations, far distant from patients, and may not be able to identify the patient's need for their competencies unless referrals are made or documentation was properly and timely employed. Referrals may, however, take place haphazardly as identifying health problems requires the proper knowledge. Referrals will therefore depend significantly on the professional's knowledge of other collaborative discipline competencies.

Professionals, most likely nurses who are closest to the patients usually perform the majority of the coordinator role (Marek, Stetzer, Adams, Bub, Schlidt&Colorafi, 2014), become more responsible for and are expected not only to know but also to implement actions that are defined by a blurred line between overlapping disciplinary jurisdictions. This may mean that some professional competencies are not fully utilized due to their geographical location. Some professionals are, however, compelled to broaden their knowledge, functions, roles and

responsibilities to compensate for the missing competencies required immediately in their daily encounters with patients. Some groups of professionals therefore either tend to take on a responsibility that is beyond their competencies, indirectly and therefore ineffectively using their expertise.

Some healthcare resources have also not yet become a formalized part of the healthcare system due to a lack of scientific credibility. Some forms of alternative medicine are, however, now being integrated into individualized holistic healthcare. They are *accepted* through patient participation (Keshet et al, 2012) or *requested* through healthcare literacy and *agreed upon* through critical appraisal/evaluation.

Holism in healthcare suggests a need for more research within a distinct discipline and interdisciplinarity. Healthcare disciplines (in the broadest sense of holism) extend beyond those explored in this study, social and cultural sciences and anthropology having contributed significantly to healthcare. Research, for example, shows that women engage with both complementary medicine and biomedicine in response to ageing and chronic illnesses (Meurk, Broom, Adams, & Sibbritt, 2012), signifying that the current structure is transforming. In Israel, interventions such as reflexology and acupuncture have been integrated as an intervention to complement surgery and is showing positive outcomes (Keshet et al, 2012).

It is evident that the evolving conceptualizations of holism in healthcare have transformative implications for professional practice, education and research. The desired transformation upholds the common understanding of the concept at the philosophical level, and ensuring its influence upon the entire nature and scope of the healthcare system and policies (Lane, 2005). The value of a human being remains at the core of all knowledge, activities and advancement at universities and colleges, in clinical settings and involved offices. This is reflected in the interdisciplinary endeavor of institutions to achieve holism in healthcare, despite their limitations. The evolving idea of holism challenges the transformation of today's healthcare organization in clinical institutions, which in turn challenges the educational system and research methodologies.

Holism in its real sense suggests that human needs should not be seen through the limited perspective of separating human beings into parts and from a human being's environment and aspect of time, space and energy field. There are a number of research studies that address holism. They focus on the problems brought about by incomplete, untimely or delayed and interrupted healthcare delivery, including *patient-centred research, patient safety, interprofessional education, interprofessional practice, interdisciplinary research, and continuity of care* (Mead and Bower, 2000; Stewart et al., 2003; Edberg, Ehrenberg, Friberg, Wallin, Wijk, et al, 2013; Aase, 2010; Reeves, Perrier, Goldman,

Freeth & Zwarenstein, 2013; Zwarenstein, Goldman & Reeves, 2009; Williams, Dunning & Manias et al., 2007; Pizzi, 2014; Rustad, Furnes, Cronfalk & Dysvik, 2015). Other research discusses the continuum of care within a given scope (Yiu et al, 2011). A growing number of papers also show that alternative medicines are being incorporated in hospital settings, including surgical units (Keshet et al, 2012), oncology departments (Dobos, Voiss, Scwidde, Choi, Paul, Kirschbaum, Saha & Kuemmel, 2012) and in aged care (Bauer & Rayner, 2012). The American Society for Nutritional Sciences also takes one step in this direction, by encouraging scientists in the field of nutrition to integrate the knowledge from molecular events to metabolism and further to behavior (Zeisel, Allen, Coburn, et al. 2001 in Hoffmann, 2003). Complementary medicine has been included in the recognition of the diversity of patients' cultural and religious backgrounds (You et al, 2011), and in acknowledging the reality that world society is becoming more and more internationalized.

Conclusion

Healthcare, as a system, is a complex whole that promotes the humanistic principle of holism in caring for society. The broadest meaning of holism in healthcare, as a humanistic principle, is focused on a whole being that unifies

mind, body, spirit, time, space, energy fields and environment. The semantic definition of holism that describes the *scope of wholeness* of a human being has, however, been conceptualized by professionals to comply with their limited professional practice in the clinical setting of their disciplinary fields. Healthcare professionals have therefore deduced that the semantic conceptualization of holism depends on their disciplinary aims and intervention, so narrowing their view of the individual. Holism was later conceptualized as a process that takes into consideration the importance of collaborative care management, coordination of care and care continuum. These processes connote the patient's needs for appropriate care in time and space. It, however,seems that this structure limits the possibilities of facilitating a more holistic care.

It appears that *professionals are torn between their disciplinary allegiance, loyalty to existing organizational routines and true holistic principle* (humanistic and semantically complete). The findings implicate necessary *ongoing and further* changes in educational curriculums, in organizational routines or structures in the clinical area and in the research traditions within and across disciplines.

Holism in healthcare has evolved from a humanistic concept of broadest semantical meaning to a deduced conceptualization, so returning to a deeper philosophical and broader linguistic concept that centers on a complete human being, including the need for appropriate, timely and continuous healthcare service. Holism as an evolving concept in healthcare can be operationalized as a humanistic principle that unifies professionals' (inter)disciplinary aim, intervention and/or processes that acknowledge and protect human value by promoting an *appropriate, timely, complete and safe care* of the patient within a given healthcare *continuum*.

The results suggest that there is a need for further empirical interdisciplinary studies to explore how professionals conceptualize and intercommunicate holism in specific healthcare circumstances - as an underlying common aim, as an integrative intervention, and as an integrative process. This study also raises questions such as how can holism as an evolving concept be further developed to efficiently promote a coherent understanding of interdisciplinary holistic aims, interventions and processes in all forms and levels of interdependent professional communication. And how can a coherent conceptualization of holism lead to the provision of complete, timely and appropriate healthcare service in a given continuum? It is, however, recommended that involved healthcare disciplines are represented in future research.

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