Chapter 2
Scale the Agility in a Multidisciplinary Remote Care Services Delivery System

ABSTRACT

The main objectives of healthcare systems are to provide healthcare services delivery to populations for health promotion, diseases prevention, and treatment. Healthcare systems can use the telemedicine paradigm or traditional direct care approach to deliver health services to the population. Healthcare delivery activities include simple activities, predictable (e.g., curing a small injury), as well as unpredictable, variable, and complex activities (e.g., heart disease treatment). Agile healthcare, learning from the agile software development methodology, seems to be an approach today to face the complexity of healthcare delivery. This chapter discusses how an agile paradigm can help to better coordinate healthcare delivery within the remote care system.

INTRODUCTION

Chapter 1 presented a multidisciplinary care team (MCT) as support for a proposed remote care delivery system. The MCT consists of healthcare and para-medical professionals as well as technical personnel. The MCT has to perform planned and unpredictable tasks every day. The more the team and project's tasks sizes increase the more performing the tasks becomes very

complex. Team members must regularly harmonize their work plans, have grooming meeting, coordinate each step of assigned tasks.

Medical treatment is a dynamic process, whose requirements can continually change according to the course of disease pattern or clinical pictures. This aspect of the healthcare delivery leads to the unpredictability and can render healthcare services delivery complex in certain cases. Therefore, physicians and entire medical treating team must quickly react to any change and change the course of the treatment accordingly. Precisely for this reason, adopting the agile methodology like Scrum in providing healthcare can present certain benefits and help to meet the high-level of complexity and uncertainty that can be faced.

Recently, the agile methodology is proposed as methodology approach for improving the healthcare services delivery. However, agile methodology is not yet implemented in the medical field (Fujita & Guizzi, 2015). In (Williams, 2017), the recognition that research in agile healthcare is limited. Sara Tolf et al., though, investigate in (Qin, Prybutok, Prybutok, & Wang, 2015) the agility approach in hospitals and point out five cornerstones that hospitals should build to optimally use the agile methodology in their care delivery systems. They state their finding as follows:

… Five organizational capacities were derived as necessary for hospitals to use the strategies optimally: transparent and transient inter-organizational links; market sensitivity and customer focus; management by support for self-organizing employees; organic structures that are elastic and responsive; flexible human and resource capacity for timely delivery…

The authors demonstrate how agile methodology can contribute to face uncertainty and flexibility in healthcare services delivery. We retain two matter points from the findings cited above: transparent and transient inter-organizational links and management by support for self-organizing employees. The mean "Self-organizing employees" implies flexible human and resource capacity for timely delivery. According to the authors, the transparent and transient inter-organizational links more focus on the interaction between an organization and its surrounding context where the key feature is to create relationships with the stakeholders in the external environment. This study indicates the increasing interest in developing or implementing agile healthcare to meet the increasing uncertainty, complexity of the healthcare services delivery, and the flexibility requested by a dynamic medical process.

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