Chapter 3
Individual, Institutional, and Environmental Factors Promoting Patient Retention and Dropout

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ABSTRACT

The primary purpose of this chapter is to determine factors that shape client dropout and adherence to Cardiac Disease Prevention and Rehabilitation Programs. The sample consists of 68 individuals, including those currently in the program (adherents) and those who have dropped out (dropouts). Findings show that clients undergoing rehabilitation are much likely to drop out when they are in the critical zone. This is a point where institutional factors, individual factors and environmentally-related factors are not favorable to clients. The risk of clients dropping out can be drastically reduced through the provision of an enabling environment comprising a set of factors that foster adherence such as financial sponsorship, institutional support, high intrinsic motivation, improved illness perception. In that context, there is the need for program administrators to closely monitor at-risk clients, especially those whose social, economic and psychological profiles predict non-adherence.

INTRODUCTION

The issue of client dropout from Cardiac Disease Prevention and Rehabilitation Programs (CDPRP) is a global problem. Client dropout from CDPRPs has generated concern at the institutional level, prompting the need to determine barriers to adherence as a means to both address the problem and improve institutional planning (Leon et al, 2005). It is in that context that determining barriers to client adherence and retention have been the concern of the Heart and Stroke Foundation of Barbados.

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The following are the objectives of this chapter:

1. To investigate reasons that influence client adherence dropout from the program.
2. To determine the effectiveness of the program.
3. To assess if there are differences in adherents (current participants) and dropouts with respect to client satisfaction, intrinsic motivation, social support, institutional support, family support, illness perception and psychological distress.

**BACKGROUND**

Barbados is a densely populated island of 431 square kilometers with a population of 284,644 (World Bank, 2013). The Heart and Stroke Foundation of Barbados initiated the Cardiac Disease Prevention and Rehabilitation Program in 1994. It aims at rehabilitating clients through the use of medically monitored exercise, dietary advice, psychological counseling and education to enable participants (clients) become more informed and empowered to adopt a healthy lifestyle and ultimately sustain the benefits of rehabilitation over a lifetime (Heart and Stroke Foundation of Barbados). Unfortunately, client participation and adherence to the CDPRP have been declining over the years.

Despite the evidence of benefits, many patients fail to participate in or adhere to cardiac rehabilitation (Ades as cited in Leon et al., 2005). Adherence rate is operationally defined as ‘the number of persons who remained active in a program at a given time compared with the total number of persons who began the program’ (American Heart Association, 1994, p. 1605). According to the American Heart Association, adherence rate is highest in the first three months of exercise training programs, typically above 80%, down to 60% -71% in the sixth month, 45% -60% in twelfth month, 30%-50% after the second to fourth years. While factors linked to client drop-out are varied and somewhat interconnected, Aldosary and Garba (1999) stated that these factors could be grouped into two main categories namely (1) individual factors-those factors associated with individual traits and (2) institutional factors-those factors associated with the institutional environment.

**Barriers to Participation and Adherence**

There are barriers to client participation and adherence to health rehabilitation. Evidence from survey research indicates that there are several obstacles faced by patients who are eligible to participate in outpatient cardiac rehabilitation. In that context, Yohannes, Yalfani, Doherty, and Bundy (2007) studied a group of 189 patients who had been referred to a six-week outpatient cardiac rehabilitation program. The specific focus of their research was to identify the predictors of early drop-out from a cardiac rehabilitation program perceived to contribute to the drop-out problem, and assess the major differences between adherents and drop-outs. Yohannes and colleagues found significant differences between adherents and drop-outs, hence concluded that gender, younger age, Hospital Anxiety Depression Scale score, illness perception consequences, illness perception personal control and illness perception treatment control to be the major predictors of persisting or dropping-out. Similarly, Wittmer, Volpatti, Piazzalunga, and Hoffmann (2012) reported that low exercise capacity, high body mass index, smoking, diabetes, and widowhood were significant factors associated with early withdrawal. Daly et al. (2007) reported that factors associated with adherence included non-referral by physicians, associated illness, specific