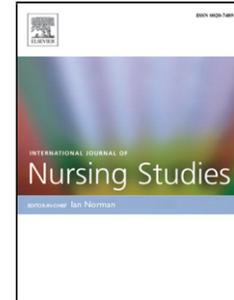


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Title: Frequent Attenders in Primary Health Care: A Concept Analysis

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Abstract

Objectives: Frequent attendance is a well-known phenomenon in health care systems. A small proportion of patients make a high rate of visits to primary health care physicians. However, due to the diversity of this phenomenon, there is no generally accepted definition of the frequent attender. The aim of this analysis was to define the concept of the frequent attender in primary health care.

Design: A concept analysis.

Data sources: The literature was searched using electronic databases (MEDLINE, CINAHL, and Scopus) and a manual search was performed for studies published from 2000-2016. The inclusion criteria covered frequent attenders in primary health care examined by quantitative or qualitative studies published in English or Finnish.

Review methods: Walker and Avant's (2010) strategy for concept analysis was used. Uses of the concept were studied, and attributes, antecedents, and consequences of the concepts were defined.

Results: A total of 59 articles provided data for this concept analysis. Four defining attributes of frequent attenders were identified: the feelings of symptoms, perceived poor health status, lower quality of life and frequent visits to a primary health care provider. Antecedents included the patient's individual characteristics, the primary health care system, and the patient-physician relationship. Consequences were divided into two categories: those for frequent attenders and those

for society. Consequences for frequent attenders included: follow-up investigations and visits, social disadvantages, and economic costs. Consequences for society included: the costs to the national economy and the consumption of health care resources.

Conclusion: A theoretical definition and a conceptual model of the frequent attender were developed. The definition and the proposed empirical referents of all four attributes can be used to validate the presence of frequent attenders and to develop theory-based applications. Future research on frequent attenders is needed to develop and assess possible interventions.

Keywords

Analysis, Patients, Primary Health Care, Quality of life, Morbidity

What is already known about the topic?

- The top 10% of attenders accounted for 30-50% of all contacts.
- Frequent attendance in primary health care is multidimensional phenomenon.
- There was no generally accepted definition of frequent attenders.

What this paper adds?

- The defining attributes of the concept were proposed and the theoretical definition of frequent attenders was developed.
- Frequent attendance causes consequences for both frequent attenders and society.
- This concept analysis provides knowledge for professionals to identify frequent attenders in primary health care at an early stage.

1. Introduction

Health services face challenges from an increasing number of chronic diseases, an ageing population, growing health inequalities, and global economic instability. The demand for health services will inevitably increase. Moreover, many individuals present with complex symptoms and multiple illnesses, challenging health service delivery to develop more integrated and comprehensive case management (World Health Organization, 2008). In Finland, 2.8 million patients visit a primary health care provider nearly 11 million times a year (National Institute for Health and Welfare, 2017). The most expensive 10% of the population generates 81% of the costs of social and health care services. Of this 10% of the population, 62% comprise patient customers of at least one social service, and 38% comprise patients using only health care services. (Leskelä et al., 2013.) In their review, Vedsted and Christensen (2005) described frequent attenders of general practitioners based on 54 studies. These 54 studies showed that the top 10% of attenders account for 30-50% of all consultations with a health care provider, and up to 40% of this population use health care services the following year.

The reasons for and needs of attendance vary (Gill and Sharpe 1999). This group includes physical illness, psychiatric illness, crisis patients, chronically somatising patients, and patients with multiple problems (Karlsson et al., 1997). Frequent attenders have real need for treatment, but often make

unnecessary visits to health care professionals for various reasons when their health condition does not objectively require attendance by health care professionals. Usually, much frequent consulting is linked to a need for health care by complaining of physical symptoms, regardless of the main cause (Karlsson et al., 1997; Jyväsjärvi et al., 1998). For some patients, the threshold for seeking care may be lowered. Individual decision making can be due to several factors such as anxiety and fear of illness, the physician's role and experience during the consultation, previously learned ways, and families' and friends' comments and behaviour (Neal et al., 2000b). Some patients do not recognise any concerns about the way in which they use services (Pickvance et al., 2004).

Patients who consume health care resources are called frequent attenders. The phenomenon is not new but has been studied since the second half of the 20th century (Backett et al., 1954). "Frequent attender" is a very widely used term throughout the world. However, there is no generally accepted definition for this group of patients in primary health care because of the multidimensional nature of the phenomenon (Vedsted and Christensen, 2005). "Frequent" means people do something often (Oxford University Press, 2017). "Attendance" means being present at a place (Oxford University Press, 2017). Most studies have defined frequent attenders according to the number of visits in a fixed time period or above the upper quartile or percentile (Campbell and Roland, 1996). The definition of frequent attenders differs between studies depending on the local conditions and the purpose of the research (Gill and Sharpe, 1999). Some studies have used a cut-off in the distribution of consultation frequency or quartiles, while others have used a specified number of consultations over a given time period (Vedsted and Christensen, 2005). Some frequent attenders are defined as patients who visit primary health care providers more than average people in their age and sex group (Howe et al., 2002; Smits et al., 2008).

The phenomenon of frequent attendance of health care services is a multidimensional problem that has been analysed from various perspectives: from primary, specialist, and hospital contexts to the patients' and health insurance providers' points of view (Botica et al., 2004). Several systematic reviews were performed over the past few decades that were based on the definition or interventions (Gill and Sharpe, 1999; Vedsted and Christensen, 2005; Smits et al., 2008; Haroun et al., 2016). There is no strong and coherent evidence of the effectiveness of the studies (Smits et al., 2008; Haroun et al., 2016).

Although several authors have examined the characteristics of frequent attenders (Gill and Sharpe, 1999; Vedsted and Christensen, 2005), professionals have no clear theoretical or operational

definitions of this concept. This makes it difficult to identify this patient group at an early stage in primary health care. However, concepts are the basic building blocks of theory (Walker and Avant, 2010). Therefore, conceptual clarification of frequent attenders is meaningful to allow for theory-based research that will provide information for practical health care. The aim of this analysis was to clarify the concept of frequent attenders in primary health care. The research questions were “How is a frequent attender defined in the literature?” and “What are the attributes, antecedents, and consequences of frequent attenders?” Sample cases from the research illustrate the concept further and help develop an operational definition. The results of this analysis will enhance the understanding of the concept and support the development of theories.

2. Methods

2.1. Concept analysis method

This concept analysis was conducted using the strategy of Walker and Avant (2010). The purpose of concept analysis is to examine the structure and function of a concept. Their strategy is based on the concept analysis method described by Wilson (1963). Walker and Avant were among the first to theoretically discuss the concepts of nursing science (Duncan et al., 2007). Their method has been used by other nursing researchers. The method has eight steps. In this concept analysis, we selected the concept (frequent attender), determined the aim of the analysis, identified all uses of the concept, identified defining attributes in a model case, identified antecedents and consequences, and defined empirical referents.

2.2. Data sources

The concept of interest in this concept analysis was the frequent attender in primary health care contexts. We examined this concept in the literature. A search was systematically performed in the CINAHL, MEDLINE, and Scopus databases between January 2000 and December 2016. The information was sought extensively throughout the decade because it was deemed relevant to the concept for health care today. Medical subject headings (MeSh) and other search terms were used to search through the titles, abstracts, and the full text of the articles (Table 1). The search process involved a combination of frequent attender terms and other search terms that describe primary health care. The articles were searched manually in the reference lists of the articles selected and the journals relevant to the review topic so that the search was comprehensive (Magarey, 2001).

The articles were included in this concept analysis if they met the inclusion criteria based on the research questions and PICO_S: Population: all frequent attenders, excluding the samples of frequent attenders from subpopulations; Phenomenon of Interest: definition of frequent attenders, attributes, antecedents, or consequences; and Context: primary health care and the study design: quantitative or qualitative studies published in English or Finnish.

The initial search process found a total of 386 articles. The original selection process (Fig. 1) was conducted in three phases to minimise the risk of errors and bias and to ensure that all relevant articles were included. Duplicate publications (n=149) among the three different databases were excluded to reduce publication bias. In addition, articles not published in English or Finnish (n=37) were excluded. The original articles were screened by title (n=125), abstract (n=110), and full text (n=59) and were included in the concept analysis if they met the predetermined inclusion criteria.

The literature data were synthesised and were partially analysed on the basis the research questions using the content analysis (Graneheim and Lundman, 2004; Elo and Kyngäs, 2008). At first, the literature was examined for definitions and attributes of the concept. Then, data regarding the temporal context of the concept (antecedents and consequences) were collected. Finally, data collected that pertained to frequent attenders were categorised into attributes, antecedents, and consequences. The data within each category were reviewed and classified into similar themes (Table 2).

3. Results

A total of 59 selected studies produced data for this concept analysis. Most of these studies were conducted in European countries (The United Kingdom, the Netherlands, Denmark, Finland, Sweden, Spain, Germany, Italy, Slovenia, Croatia, France and Ireland). Two of the studies were conducted in Australia, and two in Middle East (Israel and Kuwait). The study designs were either cross-sectional (n=41), cohort (n=14), or qualitative (n=4).

3.1. Uses of the concept

The group of patients to whom the concept of interest relates has been named ‘the patients seeking care most often’ (Bergh et al., 2005). Generally-accepted definitions of the term ‘frequent attender’

in primary health care contexts were not found in the literature. Hodgson et al. (2005) defined patients who are considered problematic in primary care contexts by the number of times they consult and by symptoms that are difficult to manage. More commonly in the studies, a frequent attender was most often identified by the number of consultations.

This analysis of frequent attenders did not find other related concepts. In the literature, the typical term was “frequent attender” but they were also called several other similar terms. These included “high attender” (Carney et al., 2001; Little et al., 2001; van Steenkiste et al., 2010), “high utilizer” (Bergh et al., 2005; Savegeau et al., 2006; Jatic and Jatic, 2008; Dinkel et al., 2016), “high user” (Jatic and Jatic, 2008), “high consumer” (Bergh et al., 2005), “high consumer” (Bergh et al., 2005), “frequent user” (Gomes et al., 2013; Kaattari et al., 2015), “heavy user” (Matalon et al., 2001; Smits et al., 2013; Nyman and Jäppinen, 2015) or “constant attender” (Jatic and Jatic, 2008). Although these terms were cited less frequently in the studies than the term “frequent attender,” they were found to share the same characteristics. Frequent attender was also called a “doctor-shopper” (Norton et al., 2012) and “difficult patient” (Matalon et al., 2001; Hauswaldt et al., 2013). These two names described a more problematic patient seen most often by health care professionals (Pickvance et al., 2004). Some frequent attenders were wanted to carry on pleasing. They were called “heartsink” patients (Smucker et al., 2001; Pickvance et al., 2004).

Frequent attendance did not seem to be a persistent characteristic of patients or a more transient phenomenon. Only a small number of patients were frequent attenders from year to year (Andersson et al., 2004; Botica et al., 2004; Smits et al., 2009; Koskela et al., 2010). Usually, consultations with frequent attenders decreased after one year. Overall, 40% of frequent attenders continued to be frequent attenders the following year and 20% continued for two years (Rifel et al., 2013).

3.2. Defining attributes

The attributes of the concept were defined to understand its meaning and differentiate it from other related concepts (Walker and Avant, 2010). Four key defining attributes were identified for the concept of the frequent attender: (1) the feelings of symptoms, (2) perceived poor health status, (3) lower quality of life and (4) frequent visits to a primary health care provider (Table 2).

3.2.1. The feelings of symptoms

The first identified attribute of this concept, the feelings of symptoms, could pertain to symptoms of either acute or chronic diseases. Sometimes no medical reason for the feelings of symptoms was determined. Chronic diseases, especially physiological problems, were the major cause of frequent visits. The most commonly reported physiological diseases were diabetes (Bergh et al., 2005; den Boer-Wolters et al., 2009; Robles et al., 2009; Savageau et al., 2009; Smits et al., 2009; Luciano et al., 2010; Buja et al., 2015; Patel et al., 2015; Pymont and Butterworth, 2015a; Pymont and Butterworth, 2015b; Jørgensen et al., 2016), hypertension (Bergh et al., 2005; Robles et al., 2009; Savageau et al., 2009; Buja et al., 2015; Kaattari et al., 2015; Patel et al., 2015; Jørgensen et al., 2016), asthma (Bergh et al., 2005; Kaattari et al., 2015; Patel et al., 2015; Pymont and Butterworth, 2015a; Pymont and Butterworth, 2015b), and osteoarthritis (Bergh et al., 2005; Luciano et al., 2010; Kaattari et al., 2015; Pymont and Butterworth, 2015a; Pymont and Butterworth, 2015b). Some suffered from depression, anxiety, and somatoform disorders and needed the support of health care professionals. However, many health problems of frequent attenders were often complex, with chronic diseases, mental disorders, and psychological distress in combination (Dowrick et al., 2000; Neal et al., 2000b; Carney et al., 2001; Jyväsjärvi et al., 2001; Matalon et al., 2002; Kapur et al., 2004; Matalon et al., 2004; Vedsted et al., 2004; Foster et al., 2006; Menchetti et al., 2006; Savegeau et al., 2006; den Boer-Wolters et al., 2009; Robles et al., 2009; Smits et al., 2009; Luciano et al., 2010; Norton et al., 2012; Gomes et al., 2013; Smits et al., 2013; Diaz et al., 2014; Buja et al., 2015; Kaattari et al., 2015; Dinkel et al., 2016; Nyman and Jäppinen, 2015; Patel et al., 2015; Pymont and Butterworth, 2015b; Jørgensen et al., 2016). In addition, frequent attenders had medically unexplained symptoms that caused new visits to a primary health care provider. Often, once a symptom had been examined, a new symptom emerged. Frequent attenders were entirely concerned with their physical complaints and had difficulties associating emotional disturbances with their symptoms (Matalon et al., 2002).

Frequent attenders also demonstrated acute physical symptoms like those seen in all kinds of patients. The most common acute illnesses were infections and injuries. Injuries were seven times more common among frequent attenders compared to other patients in primary health care (Bergh et al., 2005). In addition to diseases, a higher body mass index (BMI) was related to an increased attendance rate. Overweight patients visited primary health care with physical symptoms as a result of being overweight (van Steenkiste et al., 2010).

3.2.2. Perceived poor health status

The second attribute of the concept was perceived poor health status. Frequent attenders experienced a worsening health status. Self-rated health status generally included physical function, mental health, pain and social/emotional function. Little et al. (2001) noted perceived health, physical health status, and anxiety about one's health are mutually interrelated.

3.2.3. Lower quality of life

The third attribute of the concept, lower quality of life, highlights that frequent attenders believed they had a lower quality of life. Several factors, such as feelings of symptoms, stressful life events and adversities, perceived poor physical health, fears, and social and economic difficulties, posed a burden together or separately, weakened functional capacity, and could lead to dissatisfied life situations.

3.2.4. Frequent visits to a primary health care provider

The fourth and final attribute was frequent visits to a primary health care provider. This attribute was expected because the name of the patient group had already described it. In the studies, the criterion by which frequent attenders were defined comprised a threshold number of consultations per period. The threshold-based criterion ranged from ≥ 1 (Menchetti et al., 2006) to ≥ 24 (Hauswaldt et al., 2013) consultations. Some studies used a percentage based on consultations by the most frequent attenders (range 3-20%). Other studies used the number of visits in the quartile period or the mean visit frequency. The time periods in which the consultations were performed ranged from six (Menchetti et al., 2006, Norton et al., 2012) to 60 months (Kapur et al., 2004), with the most common period lasting 12 months.

3.3. Cases of frequent attenders

The model case of a frequent attender is an example of the use of the concept that demonstrates all of the defining attributes of the concept and helps to more fully articulate the concept's meaning. The contrary case is an example of what the concept is not. (Walker and Avant, 2010.)

3.3.1. The model case of a frequent attender

Martha is a 60-year-old cleaner. She suffers from hypertension and irritable bowel syndrome and takes four different medicines. Martha complained of chest pain, anxiety, and disturbed sleep when she visited her primary health care provider. She has presented to the primary health care with the same symptoms almost weekly for a year and has visited the emergency department at least once a month. Blood tests and several examinations were performed, but nothing was found. A nurse took an electrocardiogram and discussed her symptoms with her. Martha was scared. It turned out that her husband had died suddenly of a heart attack a year ago and her chest pain began afterward. They had been married for 40 years and Martha could not go on living alone. Her symptoms were so strong that Martha had to take a long sick leave from work. The conversation with the nurse also revealed that Martha feared serious illness. After her husband's death, Martha avoided her friends and abandoned her hobbies. She had previously enjoyed exercise. As Martha was leaving the primary health care provider, she told the nurse that her finances were a concern.

3.3.2. The contrary case of a frequent attender

John is a 35-year-old engineer who lives with his family in a house he owns. John does not have chronic diseases and has not visited a health care provider in the last five years. He is interested in his wellbeing and jogs and plays tennis for exercise. For the past five days, John has had a sore throat, a headache, and has not felt well. Now, he has suddenly developed a high fever. John went to a health care centre. A nurse took a throat sample which tested positive for angina tonsillaris. John got an antibiotic from the physician. The symptoms disappeared, and John felt healthy again after a few days.

3.4. Antecedents

Antecedents were defined as events or incidents that happen prior to the occurrence of the concept (Walker and Avant, 2010). The following antecedents were identified for frequent attendance: the patient's individual characteristics, the primary health care system, and the patient-physician relationship.

3.4.1. The patient's individual characteristics

Individual characteristics of patients who become frequent attenders include: older age, lower level of education, social and economic difficulties, and stressful life events. Socio-demographic data in the literature showed that frequent attenders were older patients with a lower level of education (Carney et al., 2001; Jyväsjärvi et al., 2001; Howe et al., 2002; Matalon et al., 2002; Andersson et al., 2004; Bergh et al., 2006; Menchetti et al., 2006; Savageau et al., 2006; Al-Kandari et al., 2008; Jatic and Jatic, 2008; Smits et al., 2008; Robles et al., 2009; den Boer-Wolters et al., 2010; Koskela et al., 2010; Norton et al., 2012; Gomes et al., 2013; Smits et al., 2013; Diaz et al., 2014; Buja et al., 2015; Nyman and Jäppinen, 2015; Smits et al., 2016). The number of consultations usually increased with age starting at age 45 years or older. Women ages 45-55 especially consulted frequently. Men's consultations increased at an even older age. In addition to older age, frequent attenders were also characterised by lower levels of education (Jyväsjärvi et al., 2001; Kersnik et al., 2001; Little et al., 2001; Vedsted and Olesen, 2005; Al-Kandari et al., 2008; Robles et al., 2009; Koskela et al., 2010; Gili et al., 2011; Norton et al., 2012; Gomes et al., 2013; Rifel et al., 2013; Kaattari et al., 2015; Patel et al., 2015; Jørgensen et al., 2016).

The following experiences have a significant and long-lasting impact on adult psychological function: childhood adversities (Schilte et al., 2001; Matalon et al., 2002; Kapur et al., 2004; Glaser et al., 2006) and perceived stressful life events in later life (Matalon et al., 2004; Glaser et al., 2006; Bergh et al., 2007; Smits et al., 2014; Pymont and Butterworth, 2015b). Persons exposed to either of these experiences react with stronger negative emotions to the small stressors arising in daily life (Glaser et al., 2006). Many stressful life events induced additional symptoms and increased the risk of illness, thereby increasing the frequency of consultation with a health care provider (Bergh et al., 2006). Four out of five frequent attenders presented unexplained physical symptoms caused by childhood adversity (Schilte et al., 2001).

A high degree of stress can lead to frequent attendance becoming a learned behaviour (Stewart and O'Dowd, 2002). Frequent attenders had a diminished sense of coherence, which measures an individual's resources for coping with life stress (Bergh et al., 2006; Bergh et al., 2007). They experienced fear of: serious diseases (Matalon et al., 2002; Matalon et al., 2004), and death (Koskela et al., 2010). They also demonstrated an insecure attachment style, especially with unexplained symptoms (Taylor et al., 2011). Inadequate social support compounded the risk of experiencing the negative effects of stress (Bergh et al., 2006).

Most authors presented social and economic difficulties as characteristics of frequent attenders. According to the literature, frequent attenders had more social problems than other patient groups (Dowrick et al., 2000; Scaife et al., 2000; Vedsted et al., 2004a; Robles et al., 2009; Smits et al., 2009; Gili et al., 2011; Smits et al. 2013). These social problems included: inadequate social support (Smucker et al., 2001; Matalon et al., 2005), social isolation (Scaife et al., 2000), and economic challenges (Scaife et al., 2000; Vedsted et al., 2004a; Vedsted and Olesen, 2005; Bergh et al., 2007; Jatic and Jatic, 2008; Robles et al., 2009; Diaz et al., 2014; Buja et al., 2015; Kaattari et al., 2015; Dinkel et al., 2016). Furthermore, frequent attenders often also felt lonely and sought companionship from primary health care providers (Jyväsjarvi et al., 2001; Vedsted et al., 2004a; Vedsted and Olesen, 2005).

Most frequent attenders had low income due to unemployment (Scaife et al., 2000; Vedsted and Olesen, 2005; Robles et al., 2009; Gili et al., 2011; Kaattari et al., 2015; Dinkel et al., 2016; Jørgensen et al., 2016), retirement, or disability pension (Vedsted and Olesen, 2005; Bergh et al., 2006; Bergh et al., 2007). Their social and economic problems were often related to their low income. A difficult social and economic situation could be caused by financial reliance on a disability pension along with poor health, both of which can be sources of distress. Moreover, inadequate social support increased morbidity, and impaired physical and psychological health (Bergh et al., 2006). Yet none of the social and economic factors applicable to frequent attenders seemed to restrict their use of the primary health care system (Vedsted and Olesen, 2005).

3.4.2. Primary health care

The patients generally sought health care for their various needs. Frequent consultations were associated with morbidities, diagnostic tests, and treatments (Bergh and Marklund, 2003; Foster et al., 2006). Moreover, the patients also found solutions to non-health problems. Health care regulations may have influenced the number of visits. There is a low threshold to apply for primary health care services because they are inexpensive and easily available. In addition, patients who need specialised health care must be referred from primary health care (Al-Kandari et al., 2008).

3.4.3. The patient-physician relationship

The patient-physician relationship (or relationships with another primary care professional) can maintain frequent attendance. Most reasons for consulting were based on representations of

physicians as respected authority figures (Hodgson et al., 2005). The patients had fewer negative attitudes about physicians and believed that they would receive the proper treatment (Little et al., 2001). Sometimes there was a lack of mutual understanding between the physician and the patient. The frustration and confusion were caused by diagnostic conclusions, goals, the direction of treatment, and follow-up plans (Smucker et al., 2001). The patients usually consulted with the same physician but many consulted widely with a large number of physicians (Neal et al., 2000a). A stronger relationship with the physician was not associated with reduced contact with specialists (Dinkel et al., 2016).

3.5. Consequences

Consequences are events or incidents that arise as a result of the occurrence of a concept and may often produce new ideas or research directions (Walker and Avant, 2010). In this analysis, the consequences of frequent attendance were divided into two categories: consequences for frequent attenders and consequences for society. Consequences for frequent attenders were follow-up investigations and visits, social advantages, and economic costs. Consequences for society included the costs to the national economy and the consumption of health care resources.

3.5.1. Consequences for frequent attenders

Frequent attenders have a high consulting frequency in primary health care (Bergh and Marklund, 2003). In addition, they use a large number of contacts for health care reasons with a range of other health and social services (Neal et al., 2001; Jatic and Jatic, 2008; Kaattari et al., 2015). For example, frequent attenders need more mental health emergency services (den Boer-Wolters et al., 2010; Kaattari et al., 2015), emergency room admissions (Matalon et al., 2002; Savageau et al., 2006; Hauswaldt et al., 2013), and home visits (Jatic and Jatic, 2008; Hauswaldt et al., 2013). The use of a large number of health care services leads to extra examinations for frequent attenders, such as referrals (Stewart and O'Dowd, 2002; Jatic and Jatic, 2008), diagnostic tests (Matalon et al., 2002), laboratory tests (Jyväsjarvi et al., 2001; Jatic and Jatic, 2008; Hauswaldt et al., 2013), and X-rays (Jyväsjarvi et al., 2001; Matalon et al., 2002). Follow-up investigations and referrals increased contacts with specialists (Matalon et al., 2002; Jatic and Jatic, 2008; den Boer-Wolters et al., 2010; Norton et al., 2012; Dinkel et al., 2016) and hospitalisations (Jyväsjarvi et al., 2001; Matalon et al., 2002; Jatic and Jatic, 2008).

The use of a large number of health care services caused social disadvantages and economic costs for frequent attenders (Kaattari et al., 2015). Follow-up investigations and health care visits in turn led to higher treatment expenses (Smits et al. 2013) and were time-consuming (Al-Kandari et al., 2008). In addition, costs were also generated by medicines. Frequent attenders obtained more prescriptions (Vedsted et al., 2004a; Vedsted et al., 2004b; Smits et al., 2009; Diaz et al., 2014; Pymont and Butterworth, 2015a; Pymont and Butterworth, 2015b); they especially used analgesics (Vedsted et al., 2004b; Smits et al., 2009; Patel et al., 2015), psychotropic medications (Stewart and O'Dowd, 2002; Vedsted et al., 2004b; Smits et al., 2009) and antibiotics (Bergh and Marklund, 2003; Vedsted et al., 2004b). Social disadvantages and economic costs increased long-term sick leave (Bergh et al., 2007; Jatic and Jatic, 2008; Luciano et al., 2010) and disability pensions (Jyväsjärvi et al., 2001; Bergh et al., 2006; Bergh et al., 2007) due to poor health and illness.

3.5.2. Societal consequences

The use of a large number of health care services caused societal consequences. These included the costs to the national economy and the consumption of health care resources. The costs of the national economy arose especially from consultations, medical examinations (Matalon et al., 2002), emergency room visits (Matalon et al., 2002; Savageau et al., 2006; Hauswaldt et al., 2013), specialised care (Matalon et al., 2002; Jatic and Jatic, 2008; den Boer-Wolters et al., 2010; Norton et al., 2012; Smits et al., 2013; Dinkel et al., 2016), and hospitalisation (Jyväsjärvi et al., 2001; Matalon et al., 2002; Jatic and Jatic, 2008). Moreover, frequent attenders consumed more health care resources (Smits et al., 2009). They were time-consuming, leading to higher workloads and long waiting lists and a decrease in the quality of the professionals' performance (Al-Kandari et al., 2008).

3.6. Empirical referents

The final step in Walker and Avant's (2010) method of concept analysis is determining the empirical referents for the defining attributes of the concept. Empirical referents mean how the concept is determined and measured using defining attributes in the real world. Two measurements were found to be useful in instrument development. They measure perceived health status, quality of life and the feelings of symptoms. Frequent visits to primary health care providers were reliably obtained from health care patient record systems.

The Short Form 36 Health Survey (SF-36) is a 36-item instrument designed to measure quality of life. It consists of eight sections: vitality, physical functioning, bodily pain, general health perceptions, physical role functioning, emotional role functioning, social role functioning, and mental health. This instrument also measures several defining attributes: quality of life, morbidity, perceived health status, and social life (Ware and Sherbourne, 1992; Jenkinson et al., 1997).

The feelings of symptoms can be followed up in the International Classification of Primary Care (ICPC-2) classification. It classifies patient data and clinical activity in primary care. The structure allows the classification of the patient's reasons for the encounter, the problems/diagnoses managed, primary or general health care interventions, and the ordering of these data into an episode of care structure. The ICPC-2 was developed by the WONCA International Classification Committee and was accepted into the World Health Organisation's Family of International Classifications (WONCA, 1998).

3.7. Definition of the concept

Based on our analysis of the literature, the following theoretical definition of frequent attenders was developed:

Frequent attenders are patients with a pronounced need to visit primary health care providers. They feel symptoms that they either find difficult to control or lack knowledge of how to control. The symptoms they experience reduce their health status and interfere with their quality of life.

A proposed conceptual model of frequent attendance is shown in Figure 2.

4. Discussion

This analysis was conducted to clarify the concept of the frequent attender in primary health care by identifying attributes, antecedents, and consequences using Walker and Avant's (2010) strategy for concept analysis.

Frequent attendance is characterised by four different attribute categories: the feelings of symptoms, perceived poor health status, lower quality of life, and frequent visits to a primary health care provider. These four categories are related (Fig. 2) and are like a hermeneutic circle. The parts (attributes) form the whole (the concept), and one's understanding of the whole is based on

reference to the parts. In the life of an individual, health is the key factor from which all attributes reflect. Health impacts all areas of human life, and all areas of human life impact health. When a person feels 'poorly', he/she may experience pain and often seeks care for as long as he/she feels the need to get help for his/her symptoms.

Attributes describe perspectives on patients' perceived feelings of symptoms, health status, quality of life, and request for help from health care. Only two studies demonstrated why frequent attenders seek primary health care (Bergh and Marklund, 2003; Foster et al., 2006). Pickvance et al. (2004) noted that frequent attenders did not show any concern about their excessive use of health care services. Frequent attenders with minimal social contacts may be seeking preventive support to avoid an event that could cause them to spend beyond their limited resources. Another reason for frequent attendance could also be that older, less educated people have a limited understanding of their health condition.

The literature demonstrated a lack of definitions for the term frequent attender. Instead, definitions of the term were reflected in the target populations selected for the studies included in this concept analysis. Criteria for the selection of the target population varied greatly and were based primarily on the number of consultations with a primary health care provider. It was simply impossible, based on these criteria, to identify the patients who really needed health care and the ones whose symptoms were based on an unrealistic perceived need for health care.

Our definition of the concept is based on attributes of the target population because the presence of several different health care systems in the literature prevented definition of the concept by frequency of consultations only. It is important to examine the results from the literature from the patient's perspective, and not only based on use of services, to determine whether there is a frequent attender at a health care facility. In future studies, this theoretical definition of concept and the proposed empirical referents of each attribute should be used to measure the target group, validate the understanding of concept, and develop theory-based application. Moreover, since frequent attenders have different needs depending on their illness and life situation, future research is also needed to help develop and assess interventions. Effective health coaching can be used in primary health care; it can motivate the patient, take advantage of a patient's willingness to change their lifestyle, and support the patient's home-based self-care (Hayes and Kalmakis 2007; Olsen and Nesbitt 2010; Kivelä et al., 2014).

This concept analysis also identified the antecedents to frequent attendance, one of which involves individual patient characteristics. The frequent attender's individual characteristics included older age, lower level of education, social and economic difficulties, and stressful life events. The cause of the symptoms they present, which may not be recognized by the frequent attender, could be something other than illness. Stressful life events and experiences have especially negative impacts on health and increase the risks of morbidity and mortality (Dube et al., 2009).

Other antecedents identified from the analysis include the primary health care system and the patient-physician relationship. Health care regulations and patient relationships with physicians or other health care professionals could lead to additional visits. However, these antecedents were rarely perceived as problematic (Pickvance et al., 2004). Further research is needed to establish how non-patient-related factors affect frequent attendance.

Unexpectedly, the literature more often reported the characteristics of frequent attenders than the consequences. However, the consequences were identified and defined for frequent attenders and for society. Referrals, diagnostic investigations, drugs, long-term sick leaves, and increased workload for health care professionals caused considerable costs. Future research is needed to show the consequences, especially for society, and cost-effectiveness.

When frequent attenders seek treatment from primary health care providers, they have some feelings of symptoms. Frequent attender early identification and problem solving can significantly reduce visits to primary health care providers. It is important to discover the underlying factors such as stressful life events, social relationships, economic situation, and everyday coping strategies. Then the patient will obtain the proper help, such as crisis therapy, possibly leading to a better prognosis (Bergh et al., 2007). In addition, health care providers should pay attention to supporting the patient's own survival skills and creating social networks (Kaattari et al., 2015). Cooperating with different professionals and sectors could also be achieved with better results. One important factor in treatment is to achieve a confidential and permanent care relationship between the patient and the professional. Listening to the patient, identifying and treating associated symptoms such as depression and focusing attention on the continuity of care can significantly reduce visits to primary health care providers (Nyman and Jäppinen, 2015).

The limitations of this concept analysis focus on the research process and the researchers' perspective. This concept analysis was limited to the primary health care context because this

context was considered most manageable and was the primary interest of the researchers. The search for studies was first oriented to previous studies and search terms. Based on the results of the scoping search, the final search terms were defined aiming to describe frequent attenders in the primary health care context. Acquisition of comprehensive search results was critical because the term frequent attenders in the primary health care context is not clearly defined. Moreover, varying research designs made comparison and generalisation of the studies a challenge (Vedsted and Christensen, 2005).

Studies were searched via electronic databases and manually to avoid publication bias. The scientifically recognised publications selected were discretionary in this concept of analysis. It included a risk of language bias because only studies published in certain languages were included. In addition, the concept analysis included a risk of selection bias, extraction bias, and analysis bias because the study selection process, data extraction and analysis were all conducted by one researcher. Despite this risk, the studies were all described accurately and systematically. This concept analysis was deepened slightly by inclusion of real-life adaptations of concept cases and empirical referents.

5. Conclusion

Frequent attenders are a small subgroup of patients who consume the most primary health care services. Research has identified a lack of conceptual clarity. This concept analysis enhances understanding of the concept by proposing a theoretical definition of frequent attenders using Walker and Avant's (2010) strategy for concept analysis. The definition and the proposed empirical referents of all four attributes identified can be used to validate the presence of frequent attenders and develop theory-based applications. Further research on frequent attenders is needed to develop and assess interventions for this patient population. This concept analysis provides knowledge for health care professionals to identify frequent attenders in primary health care as soon as possible.

Contributions

Study design: KK, SE, MK; data collection: KK; data analysis: KK; and manuscript preparation: KK, SE, and MK.

Conflicts of interest statement

No conflicts of interest have been declared by the authors.

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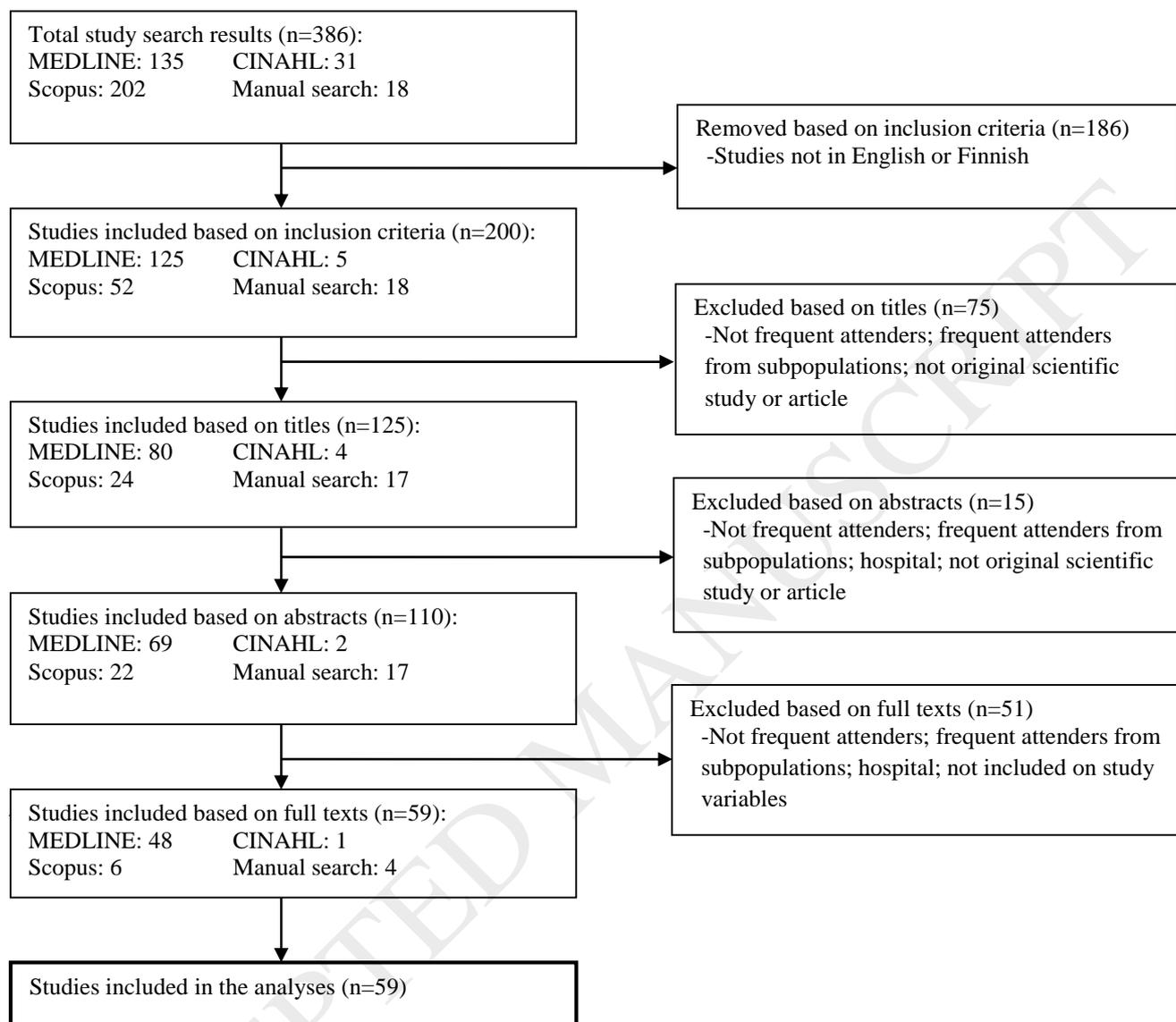
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Legends

Fig. 1. Flowchart of the study selection process of the concept analysis

Fig. 2. Proposed conceptual model of frequent attendance

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Figures:**Fig. 1.** Flowchart of the study selection process of the concept analysis.

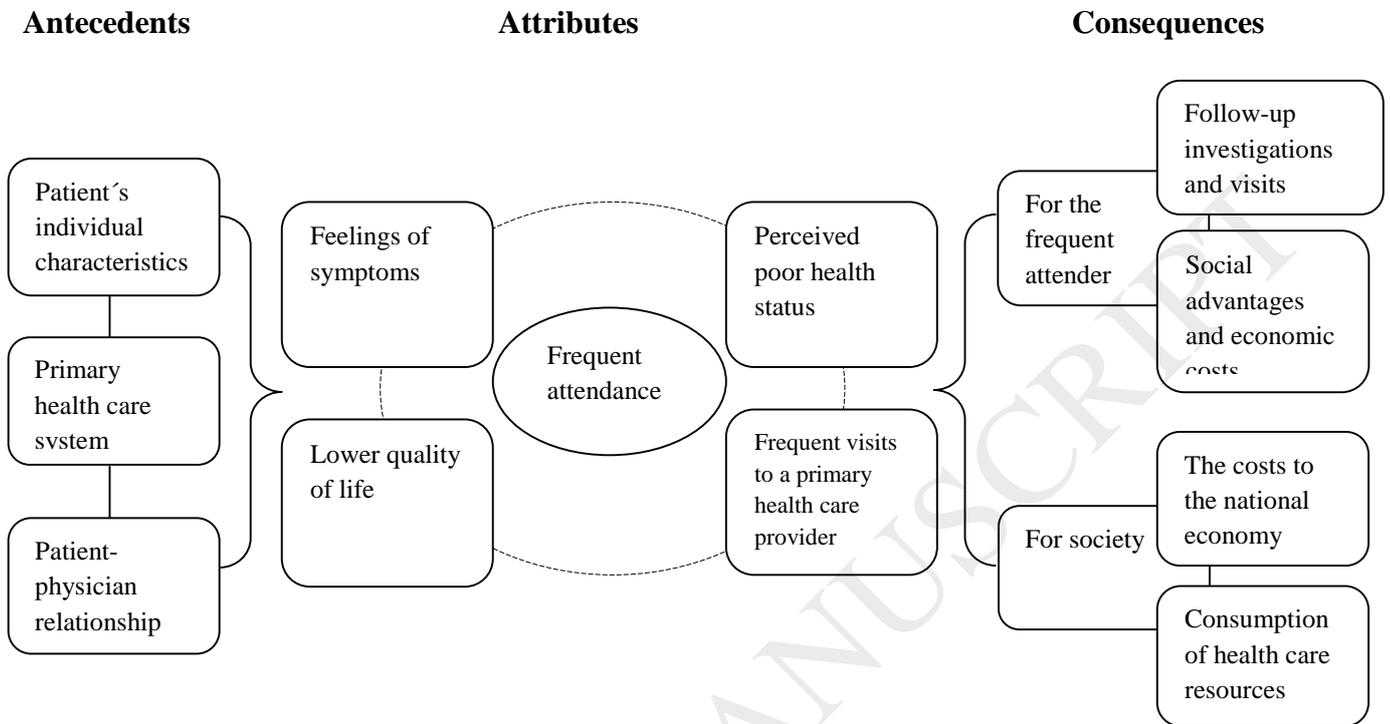


Fig. 2. Proposed conceptual model of frequent attendance.

Tables:**Table 1.** Search terms used in database research

Term that describe frequent attenders	“frequent attend*” AND
Other search terms that describe primary health care	“primary health care” (MH “Primary Health Care”) or “general practise (MH “General Practise”) or “family practise (MH “Family Practise”) or “physicians, family” (MH “Physicians, family”)

Table 2. Data synthesis by categories

Form category	Sub category
The feelings of symptoms	<ul style="list-style-type: none"> • Chronic diseases • Chronic somatic diseases and symptoms • Mental disorders and psychological distress • Acute physical symptoms • Medically unexplained somatic symptoms • Weight problems • Medically unexplained somatic symptoms
Perceived poor health status	<ul style="list-style-type: none"> • Poor self-rated health • Poor self-perceived health • Perceived poor health
Lower quality of life	<ul style="list-style-type: none"> • Lower perceived quality of life • Dissatisfied life situations
Frequent visits to a primary health care provider	<ul style="list-style-type: none"> • ≥ 1 consultation a month during six months • ≥ 3 consultations in 12 months • ≥ 5 consultations in 12 months • ≥ 7 consultations in 12 months • ≥ 8 consultations in 12 months • ≥ 10 consultations in 12 months • ≥ 12 consultations in 12 months • ≥ 13 consultations in 12 months • ≥ 24 consultations in 12 months • ≥ 15 consultations in 30 months • ≥ 30 consultations in 24 months • ≥ 15 consultations in 36 months • The top 3 % of attenders in 12 months • The top 10% of attenders in 6 months • The top 3 % of attenders in 41 months • The top 10% of attenders in 12 months • The top 10% of attenders in 24 months • The top 10% of attenders in 36 months • The top 10 % of attenders in 60 months • Top 150 attenders • The third quartile for his or her age-sex group • The top quartile of attenders in 24 months • Mean x 2 in 12 months
Patient's individual characteristics	<ul style="list-style-type: none"> • The older patient • A lower level of education • Social problems • Low income • Stressful life events • Childhood adversities • A diminished sense of coherence • The fear
Primary health care system	<ul style="list-style-type: none"> • Health care regulations • A low threshold to apply for primary health care services • Inexpensive

	<ul style="list-style-type: none"> • Easily available • Referral to specialised health care from primary health care
Patient-physician relationship	<ul style="list-style-type: none"> • Physicians as respected authority figures • The patients had fewer negative attitudes about physicians • The patients believe to receive the proper treatment • A lack of mutual understanding between the physician and the patient • The patients usually consulted with the same physician The patients consult widely with a large number of physicians
Follow-up investigations and visits	<ul style="list-style-type: none"> • Large number of contacts with other health and social services • Extra examinations • Contacts with specialists • Hospitalisations
Social advantages and economic costs	<ul style="list-style-type: none"> • Higher treatment and medicine expenses • Time-consuming • Long-term sick leave • Disability pension
The costs to the national economy	<ul style="list-style-type: none"> • Consultations • Medical examinations • Emergency room visits • Specialised care • Hospitalisations
Consumption of health care resources	<ul style="list-style-type: none"> • Time-consuming • Higher workloads • Long waiting lists • A decrease in the quality of the professionals' performance

Table 3. Characteristics of frequent attenders

Characteristics	Description
Feelings of symptoms	<ul style="list-style-type: none"> • Chronic diseases (Kersnik et al., 2001; Bergh et al., 2006; Bergh et al., 2007; Al-Kandari et al., 2008; Jatic and Jatic, 2008; van Steenkiste et al., 2010; Norton et al., 2012) • Chronic physiological problems (Dowrick et al., 2000; Neal et al., 2000b; Carney et al., 2001; Jyväsjärvi et al., 2001; Little et al., 2001; Smucker et al., 2001; Matalon et al., 2002; Bergh and Marklund, 2003; Kapur et al., 2004; Matalon et al., 2004; Vedsted et al., 2004a; Bergh et al., 2005; Foster et al., 2006; Menchetti et al., 2006; Savageau et al., 2006; Robles et al., 2009; Smits et al., 2009; den Boer-Wolters et al., 2009; Luciano et al., 2010; Taylor et al., 2011; Norton et al., 2012; Gomes et al., 2013; Hauswaldt et al., 2013; Smits et al., 2013; Diaz et al., 2014; Buja et al., 2015; Kaattari et al., 2015; Nyman and Jäppinen, 2015; Patel et al., 2015; Pymont and Butterworth, 2015b; Dinkel et al., 2016; Jørgensen et al., 2016) • Mental disorders and psychological distress (Dowrick et al., 2000; Carney et al., 2001; Jyväsjärvi et al., 2001; Kersnik et al., 2001; Neal et al., 2000b; Smucker et al., 2001; Vedsted et al., 2001; Matalon et al., 2002; Kapur et al., 2004; Matalon et al., 2004; Vedsted et al., 2004a; Vedsted and Olesen, 2005; Foster et al., 2006; Glaser et al., 2006; Menchetti et al., 2006; Savageau et al., 2006; Robles et al., 2009; Smits et al., 2009; den Boer-Wolters et al., 2009; Koskela et al., 2010; Luciano et al., 2010; Gili et al., 2011; Norton et al., 2012; Gomes et al., 2013; Smits et al., 2013; Diaz et al., 2014; Smits et al., 2014; Buja et al., 2015; Kaattari et al., 2015; Nyman and Jäppinen, 2015; Patel et al., 2015; Pymont and Butterworth, 2015b; Dinkel et al., 2016; Jørgensen et al., 2016) • Acute physical symptoms (Neal et al., 2001; Smucker et al., 2001; Matalon et al., 2002; Bergh and Marklund, 2003; Bergh et al., 2005; Foster et al., 2006; Luciano et al., 2010; Kaattari et al., 2015; Nyman and Jäppinen, 2015; Patel et al., 2015) • Medically unexplained somatic symptoms (Little et al., 2001; Schilte et al., 2001; Smucker et al., 2001; Menchetti et al., 2006; Smits et al., 2009; Taylor et al., 2011; Smits et al., 2013) • Weight problems (Neal et al., 2001; Koskela et al., 2010; van Steenkiste et al., 2010; Patel et al., 2015; Jørgensen et al., 2016)
Perceived poor health status	<ul style="list-style-type: none"> • Poor self-rated health (Dowrick et al., 2000; Neal et al., 2000b; Jyväsjärvi et al., 2001; Little et al., 2001; Matalon et al., 2002; Vedsted and Olesen, 2005; van Steenkiste et al., 2010; Taylor et al., 2011; Norton et al., 2012; Rifel et al., 2013; Kaattari et al., 2015; Pymont and Butterworth, 2015a)

Lower quality of life	<ul style="list-style-type: none"> • Lower perceived quality of life (Kersnik et al., 2001; van Steenkiste et al., 2010; Rifel et al., 2013; Kaattari et al., 2015; Patel et al., 2015)
Frequent visits to a primary health care provider	<ul style="list-style-type: none"> • ≥ 1 consultation a month during six months (Menchetti et al., 2006) • ≥ 3 consultations in 12 months (Buja et al., 2015) • ≥ 5 consultations in 12 months (Little et al., 2001; Andersson et al., 2004) • ≥ 7 consultations in 12 months (den Boer-Wolters et al., 2009; Diaz et al., 2014; Nyman and Jäppinen, 2015) • ≥ 8 consultations in 12 months (Jyväskylä et al., 2001; Kersnik et al., 2001; Koskela et al., 2010; Taylor et al., 2011; Kaattari et al., 2015; Dinkel et al., 2016) • ≥ 10 consultations in 12 months (Neal et al., 2001) • ≥ 12 consultations in 12 months (Scaife et al., 2000; Carney et al., 2001; Al-Kandari et al., 2008; Robles et al., 2009; Gili et al., 2011) • ≥ 13 consultations in 12 months (Stewart and O'Dowd, 2002) • ≥ 24 consultations in 12 months (Hauswaldt et al., 2013) • ≥ 15 consultations in 30 months (Savageau et al., 2006) • ≥ 15 consultations in 36 months (Schilte et al., 2001; Glaser et al., 2006) • ≥ 30 consultations in 24 months (Patel et al., 2015) • The top 3 % of attenders in 12 months (Howe et al., 2002; Pickvance et al., 2004; Smits et al., 2008) • The top 3 % of attenders in 41 months (Neal et al., 2000a) • The top 10% of attenders in 6 months (Norton et al., 2012) • The top 10% of attenders in 12 months (Vedsted et al., 2001; Bergh and Marklund, 2003; Vedsted et al., 2004a; Vedsted et al., 2004b; Bergh et al., 2005; Vedsted and Olesen, 2005; Bergh et al., 2006; Bergh et al., 2007; Smits et al., 2008; Smits et al., 2009; Luciano et al., 2010; Rifel et al., 2013; Smits et al., 2013; Smits et al., 2014; Pymont and Butterworth, 2015a; Pymont and Butterworth, 2015b; Jørgensen et al., 2016; Smits et al., 2016) • The top 10% of attenders in 24 months (Smucker et al., 2001) • The top 10% of attenders in 36 months (van Steenkiste et al., 2010) • The top 10 % of attenders in 60 months (Kapur et al., 2004) • Top 150 attenders (Neal et al., 2000b) • The third quartile for his or her age-sex group (Botica et al., 2004; Jatic and Jatic, 2008) • The top quartile of attenders in 24 months (Gomes et al., 2013) • $> \text{Mean} \times 2$ in 12 months (Dowrick et al., 2000; Hodgson et al., 2005)