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Abstract

Purpose: This study describes how frequent attenders (FAs), divided into different profiles, use of primary care, emergency care and specialised medical care, and which social services have been decided to them.

Design/methodology/approach: The present study utilizes previous research of FAs and their identification of four profiles. The data was acquired from three data registries in Finland. Analysis of the FAs (n=56) data was undertaken using descriptive statistics methods and qualitative analysis.

Findings: Patients with multiple problems used primary care, emergency care and specialized medical care frequently, and they had the highest number of appointments with doctors and nurses. Social services were required mostly social work. Visits made by patients with an impaired capacity caused by substance abuse were mainly targeted at appointments and mental health care services to a nurse in primary care. The required types of social services were often rehabilitative work experience. For mothers requiring support, the most frequently used services

in primary care were the child health and maternity clinic. The social services decided were mostly social work. Children and adolescents who are burdened by everyday concerns visits were mainly focused on primary care to the child health and maternity clinic. Use of social services often entailed the supervision of contact sessions between parents and children's.

Research limitations/implications: The service needs of FAs should be understood multi-dimensionally and the research results justify the individualised integration of social and health services for FAs.

Originality/value: The study confirmed that there is the need for increase knowledge of FAs.

Introduction

The present study examines the ~~customer~~-service user-oriented and individualised integration of social and health services (Ham 2018, Stokes et. al. 2018). In definitions of integration that describe a ~~customer~~-service user -oriented approach (Valentijn et. al. 2013), the focus has been on the ~~customer's or~~ patient's perspective and how to organise services better when the goal is the benefit of the patient (Timbel et. al. 2017). Patients with multiple conditions (Rijken et. al. 2018) and treatment of frequent attenders (FAs) have also been foregrounded in integration research as diverse, complex and partially unknown areas (Goodwin and Alonso 2014). Integration of social and health services is considered to improve the quality and cost-effectiveness of treatment by guaranteeing coordinated care in accordance with the patient's needs (Timbel et. al. 2017). It has also concluded that integration seems particularly useful for those who are in the most fragile position (de Carvalho et. al. 2017, Rijken et. al. 2018). However, the benefits of integration seem difficult to define (Baxter et. al. 2018, Ham 2018).

In Finland, municipalities are responsible for organising social and health care services independently or running together with other municipalities. Specialised medical care services are mainly organised by hospital districts (Nummela et. al. 2019). Social and health care can have administrative integration, but have a lack of shared data of service users and patients between social and health care services because of national laws and the strict data protection (Keskimäki et. al 2018). The fragmented and disconnected nature of knowledge and problems in communicating knowledge are critical aspects of integrated care (Currie and White 2012). For example for FAs when the integration includes tailored service guidance, a common service plan for social and health services (Valentijn et. al. 2013, Timbel et. al. 2017, de Carvalho et. al. 2017, Ham 2018, Stokes et. al. 2018) and the support of a multi-professional team (Goodwin and Alonso 2014). The contribution of nurses is considered an important factor in promoting integration (Laurant et. al. 2018).

Integration of social and health services is examined here through the customer profiles of FAs. The identification of FAs (Jørgensen et. al. 2016) and their service use (Sanvik and Hunskaar 2018) have been objects of research in health sciences for decades. FAs can be defined as customers patients who visit a doctor at the health centre frequently compared to the general population's average frequency of visits; definitions range from 2 to 24 visits per year (Vedsted and Christensen 2005). Another factor that has been used to define a FAs is the presence of multiple conditions and social service needs (Ramasubbu et. al. 2016). The present study utilises research (Anonymous 2018) of FAs and the their identification of four customer profiles: cChildren and adolescents who are burdened by everyday concerns (CAC), mMothers requiring support (MOS), Customers patients with multiple problems (CMP), Customers patients with an impaired capacity caused by substance abuse (CSA). In each of the profiles, physical, mental health and social problems were interlinked and they had a need for multiprofessional and customised social and health care services to support their daily lives. The purpose of the present

study is to describe how these FAs, use **primary care (PC)**, **emergency care (EC)** and **specialised medical care (SMC) services**, and which **social service (SSs)** have been **granted** decided to them. It appears that FAs have not been studied based on **three** data registries **at least in Finland** from the perspective of the individualised integration of social and health services.

Methodology

The participant of the study are **customers** patients who are FAs (n= 56) and who have an integrated service plan. **Their profiles were identified in a previous article (Anonymous 2018). Personal service plans were used to obtain multidisciplinary information on the FAs service needs and the rendered services in order to cross the borders of data processes, to prevent silos from being formed and to achieve improved understanding of the patient (Keskimäki et.al. 2018). The service plan was registered in a joint system of records, which is accessed by different authorities (Act 117/2014 on reducing municipal obligations and governance and experiments supporting multiprofessional service provision). Data on use of health care services and the social services SSs granted** decided was gathered from three information systems of a town in northern Finland (approximately 200,000 inhabitants) and a university hospital. Permission for the research has been obtained from the town's social and health services and specialised health services. **In this study t**The research subjects' use of **primary care PC**, **emergency care EC** and **specialised medical care (SMC)** was monitored between 1 October 2015 and 31 December 2016 from each research subject's entry in the common database and until the end of 2016. **The monitoring of use began after them have been done a joint service plan.** The research subjects were selected based on discretionary sampling (Polit and Beck 2017) so that the **customers service users or patients** were selected and service plans prepared either by the staff of the social and health care centres, including doctors, nurses, social workers and nurses at the child health

and maternity clinic. The criterion for the selection of research subjects was that they had used the services of a doctor in **primary care PC** more than six times in the past 12 months, or they required multi-professional social and health care services based on a professional assessment.

Data was obtained from data registries (Räisänen et. al. 2013). Data analysis was undertaken using descriptive statistics methods (Polit and Beck 2017) using IBM SPSS Statistics version 25. First, use of **primary care PC**, **emergency care EC** and **specialised medical care SMC** was studied based on frequencies, **and** percentages, **range, mean and median (Table 1)**. Next, the distribution of **primary care PC** visits **was examined (Table Figure 1)**, **contact types (Table 2)** and the type of health care professional (**Table 3-Figure 2**) **was described as a box plot and the total number of visits as a distribution of services**. Use of **specialised medical care SMC** was analysed based on the hospital's profit centres (**Table 4-Figure 3**). **EC were described based on usage and visits (Table 5)**. **These descriptive statistics provided an understanding of the variation in service use**. P-values (**Chi-square-test**) were used to test the differences between **genders and customer profiles**. The p-value was set at 0.05. In addition to a quantitative analysis, **social services SSS granted decided** to the research subjects were analysed by **customer** profile using qualitative analysis (Polit and Beck 2017), since no data on social service visits are available in Finland due to differences in recording practices (Räisänen et. al. 2013). The units of analysis were 1. **social services SSS** that were **granted decided** and 2. **social services SSS** that were not **granted decided**. As classification criteria, categories based on national social care legislation (**Social welfare act 1301/2014, Act on rehabilitative work experience 189/2001**) were used (**Table 6-2**).

Results

In the under-18 **customer** profile **children and adolescents who are burdened by everyday concerns CAC** (n=13), visits (**n=162**) to **primary care PC** (**Table-Figure 1**) and appointments

were the most frequent service used (53.7%), while the number of visits varied between 0 and 23 (median: 2) and followed by dental care (25.4%) and the child health and maternity clinic services (24.7%). Of all visits (Table 2), the highest proportion was appointment visits (66.0%) and also use of no real-time contact, for example electronic service channels (19.1%). Visit to nurses (58.6%) and doctors (28.4%) were most common (Table 3, Figure 2). Use of specialised medical care SMC (Table 4 Figure 3) and emergency care EC (Table 5 1) was insignificant inconsiderable. In the category of specialised medical care SMC, up to 61-88 visits were made by one individual. CAC This profile (11.2% of all visits) had fewer visits (n=268) than the other groups (Table 5-1). Social services SSs (Table 6-2) had been granted/decided to 84.6% of children and adolescents who are burdened by everyday concerns CAC. For them CAC, the supervision of contact sessions between parents and children are the most common reasons for becoming a customer service user of social services SSs.

Mothers requiring support MOS (n=15) accounted for 20.1% of all visits (Table 1) to primary care PC, emergency care EC and specialised medical care SMC (n=2388). Of primary care PC, the services of child health and maternity clinics (93.3%, p<0.001), appointments (46.7%) and dental care (46.7%) were most frequently used services (Table Figure 1). Appointment visits (Table 2) were the most popular (n=179). Home visits were made to 53.3% of the mothers. Use of no real-time contact were also popular (93.3%). Visits to nursing staff (Table 3 Figure 2) were the most frequent popular visit type (n= 218). Compared with other profiles, use of specialised medical care SMC (Table 4 Figure 3) focused on medicine (53.3%) and maternity and gynaecological concerns (46.7%). Use of emergency care EC (Table 5 1) was the second highest among the customer profiles (66.7%, median: 1.00). The social services SSs (Table 6-2) granted/decided to mothers requiring support MOS (73.3%) mainly included social work, family work and home services for families with children. The variety in different kind of social services SSs granted/decided was greater (8/10) than for other customer profiles.

Patients with multiple problems **CMP** (n=20) had many visits (n=818, median: 22.00) to primary care **PC** (Table Figure 1). During the period under review, appointment visits (p=0.003) and frequent visits (more than 6 visits) to a doctor (Table 3 Figure 2) were most frequently found in the categories of appointments (68.4% p= 0.044). Compared with other customer profiles (Table 2), **CMP** also had the most telephone contacts (n=180) and contacts that were not real time (n=274), as well as visits to doctors (p=0.044) and nurses. In use of specialised medical care **SMC** (Table 4 Figure 3), the most emphasis use was on medicine (number of visits 0–55, median: 1.00) and operative care (50.0% p= 0.007). The numbers of psychiatric visits also varied (0–46, median: 0.00). This group (p= 0.024) accounted for the highest number of visits to specialised medical care **SMC** (n=224, median: 8.00). Nearly all research subjects also visited emergency care **EC** (n=57, median: 2.00) and these all visits (Table 5 1) accounted for 46.0% (n=1099, median 41.00) of all visits (p= 0.030). Social services **SSs** were required by 60% of patients customers (Table 6 2). Social work was the most frequently required service. For customers patients with multiple problems **CMP**, the need for social services **SSs** was also related to long-term unemployment.

For customers patients with an impaired capacity caused by substance abuse **CSA** (n=8), the visits (Table Figure 1) mainly focused on primary care **PC** (n=483), and the number of visits varied between 1–149 (median: 28.00). Appointments were made by all customers patients with an impaired capacity caused by substance abuse **CSA**, and most of them also used mental health care services (p=0.034). Appointment visits were the most popular type (88.4%), and there were only a few telephone contacts (2.5%) and a small number of contacts that were not real time (8.9%) compared with other profiles (Table 2). Most frequently, visits (Table 3 Figure 2) involved nursing staff (n=148, median: 21.00) or doctors (n=66, median: 5.00). The total number of visits to specialised medical care **SMC** was the lowest (n=50) among all customer profiles. Use of emergency care **EC** was infrequent (1.7% of all visits). The number of visits varied

between 0–42 (median: 3.00). The visits to **primary care PC**, **emergency care EC** and **specialised medical care SMC** (Table 5-1) accounted for a total of 22.7% (n= 542, median 52.00) of all visits. The need (75.0%) for **social services SSs** (Table 6 2) was mostly related to either social work or rehabilitative work experience **aims to improve the possibility of finding employment**.

Conclusion Discussion

The study described how FAs, divided into different **customer** profiles, use **primary care PC**, **emergency care EC** and **specialised medical care SMC**. There was variation in use of services between **customer** profiles (Sandvik and Hunskaar 2018). During the period under review, **customers patients with multiple problems CMP** had a higher number of **primary care PC** visits (Jørgesen et. al. 2016) and use of **emergency care EC** (Jørgesen et. al. 2016, Ramasubbu et. al. 2016). **N**early all were **customers patients** of **specialised medical care SMC** and **service users of social services SSs**, which clearly creates a need for **common-shared** customership (Ramasubbu et. al. 2016) and integrated care (de Carvalho et. al. 2017, Keskimäki et. al. 2018). For **customers patients with an impaired capacity caused by substance abuse CSA**, use of mental health services offered as nurse's (Laurant et. al. 2018) appointments as part of **primary care PC** (Jørgesen et. al. 2016) was also **emphasised-likely**. Most also required **social services SSs**. For **mothers requiring support MOS**, the need for health care and **social services SSs** was related to their situation in life and everyday support (Sandvik and Hunskaar 2018). The visits made by **children and adolescents who are burdened by everyday concerns CAC** mainly focused on **primary care PC** appointments and child health and maternity clinics. Use of **specialised medical care SMC** was insignificant and largely focused on one **customer-patient** (Sandvik and Hunskaar 2018), but the number of **social services SSs granted-decided** was the highest in this group.

The study confirmed that **customers patients** who can be called FAs need many different social and health services (Goodwin and Alonso 2014, Jørgesen et. al. 2016, Ramasubbu et. al. 2016, de Carvalho et. al. 2017, Rijken et. al. 2017), but that the emphasis in service use is on **primary care PC and appointments with nurses** (Kumar and Klein 2013, Laurant et. al. 2018), and that use of services is strongly individualised to reflect the **customer's-patient's** situation (Timbel et. al. 2017, Ham 2018). The criterion for the identification of **customers patients** as FAs that they had used the services of a doctor in **primary care PC** more than six times was not met by all research subjects, even though, at 15 months, the research period was longer than one year (Vedsted and Christensen 2005) and there was great variation in the numbers of visits. The high proportion of appointments with nursing staff (Kumar and Klein 2013, Laurant et. al. 2018) among visits to **primary care PC** was particularly noteworthy. **Several studies have provided evidence of the nurses' role as a link between services and in preventing the need for high utilisation of services (Kumar and Klein 2013, Laurant et. al. 2018). In the case of specialised medical care SMC,** a small number of individuals had a high number of visits, which considerably increased the totals. In all **customer** profiles, use of **emergency care EC** was infrequent when compared with what has been found in other studies on FAs (Jørgesen et. al. 2016, Ramasubbu et. al. 2016, Sandvik and Hunskaar 2018). The relatively low level of use may be due to special characteristics of the Finnish health care system, such as the emphasis on **primary care PC** and nurses (Kumar and Klein 2013, Laurant et. al. 2018), compared to systems in other countries. Most of the research subjects in this study used **social services SSs** (Vedsted and Christensen 2005, Ramasubbu et. al. 2016, Sandvik and Hunskaar 2018).

In this area, the research results are compatible with the FAs varied needs of social and health services (Vedsted and Christensen **et. al.** 2005, Ramasubbu et. al. 2016, Jørgesen et. al. 2016, Stokes et. al. 2018, Timbel et. al. 2017, Rijken et. al. 2018, Sandvik and Hunskaar 2018). **The need of shared data between social and health care services is also significant (Currie and White**

2012, Keskimäki et. al. 2018, Anonymous 2018). Despite the need for multi-professional social and health services identified by the personnel, some **customers** **patients** used **primary care PC**, **emergency care EC** and **specialised medical care SMC** infrequently, even though they were also **service users** **customers** of **social services SSs** (Suter et. al. 2017).

Limitations of study Reliability

This study's research question aimed to identify the characteristics of the research subjects' use of **primary care PC**, **emergency care EC** and **specialised medical care SMC**, as well as the **social services SSs** **granted** **decided** to them. The reliability of the research results concerning use of services was assessed from the perspectives of the result's generalisability and transferability, and from the perspective of the research process (Polit and Beck 2017). The sample of participants was small in **both the** quantitative **and the qualitative** section, but the number of visits the participants made to **primary care PC**, **emergency care EC** and **specialised medical care SMC** was adequate for a statistical study on use of these services. The needs for **social services SSs** were classified and quantified based on national legislation. It was impossible to obtain more detailed information concerning the content of the **social** services **granted** **decided** based on data gathered from registries. The research results cannot be generalised to **other** regions, but **the similarities of FAs can be utilized in other studies**. The validity of the study was assessed based on the research question and the sample (Polit and Beck 2017). The population for the study was clearly defined and numbered. Finnish health care registers can be considered reliable (Räisänen et. al. 2013). Data collection from different systems was carried out carefully, and the necessary information was obtained for all research subjects. No research subjects were lost. A specialist in biostatistics provided necessary expertise in the analysis phase.

Conclusion

Based on the present study, we make the following observations for future practice and research in the social and healthcare sector regarding individualised integration of social and health services for frequent attenders. First, the number of visits made by frequent attenders, customers or patients are not the only appropriate indicators of customer-oriented, service-user-centred integration. (Suter et. al. 2017); the need for multi-professional support (Kumar and Klein 2013) has recognised identifying frequent attenders by a professional also plays an important role likewise multi-professional support. Second, there is the need for increase shared data about the social and health care frequent attenders. Third, the research result was compatible with the view that one integration solution does not suit everyone and that the service needs of frequent attenders, FAs should be understood multi-dimensionally and taking into account individual needs. better (Stokes et. al. 2018). Fourth, profiling may help identify frequent attenders, but it appears that FAs they need individualised integration of health care and social services (Kumar and Klein 2013, Timbel et. al. 2017, de Carvalho et. al. 2017, Ham 2018, Rijken et. al. 2018, Stokes et. al. 2018). However, the benefits of integration seem difficult to define (Baxter et. al. 2018, Ham 2018).

Shared decision making in the building of integrated solutions for the treatment care and services required by frequent attenders, FAs would be a valuable current area for further study.

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